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General Catalogue

ADMISSION AND DEGREE REQUIREMENTS
ANNOUNCEMENT OF COURSES OF INSTRUCTION

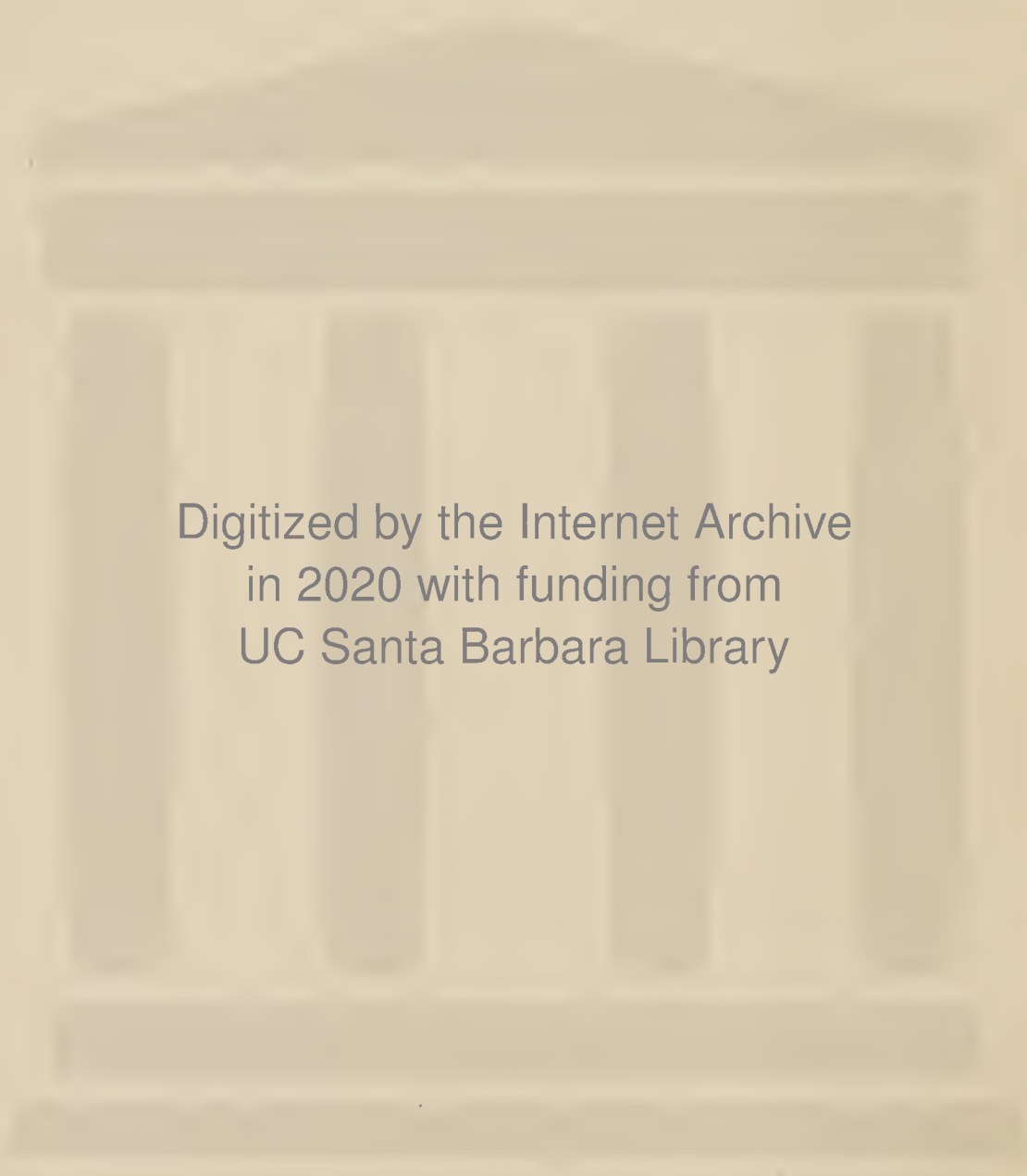
Fall and Spring Semesters

1948-1949

SANTA BARBARA • CALIFORNIA

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CALENDAR, FALL SEMESTER, 1948-1949

Aug. 16, Monday	{ Final date for applications for admission to the fall semester and credentials to be filed in the Registrar's Office.
Aug. 30, Tuesday	{ Applications for readmission to the fall semester to be filed with the Registrar by students not in attendance during the spring semester, 1947-1948.
Sept. 13, Monday	Fall semester begins.
Sept. 13, Monday	{ Consultation with advisers by old and new students. 9:00-10:30 A.M., required assembly of new students. Auditorium. 10:45 A.M.-12:00 M., meetings with department chairmen, new students. 1:30-4:30 P.M., individual counseling of students.
Sept. 14, Tuesday	{ Subject A Test, 9:00 A.M.-12:00 M. Auditorium. Psychological Test, 1:30-3:00 P.M., required of all new students. Declaration of Residence, 3:00-4:00 P.M. All new students and returning students not enrolled in spring semester, 1948.
Sept. 15, Wednesday	Registration of all students, regular and special.
Sept. 16, Thursday	{ ROTC Examination, 9:00 A.M. Auditorium. Required of all lower division male students.
Sept. 17, Friday	ROTC Advanced Examination, 8:00-11:00 A.M. Auditorium.
Sept. 18, Saturday	{ 9:00 A.M.-12:00 M. Last day for turning in registration books to Registrar's Office without fine.
Sept. 20, Monday	Instruction begins.
Oct. 8, Friday	Last day for petitioning for change of program without penalty.
Oct. 22, Friday	{ Last day to file candidacy for teaching credential and/or the bachelor's degree for February, 1949.
Nov. 12, Friday	Close of mid-semester.
Nov. 25, Thursday	{ Thanksgiving recess. Academic holiday.
Nov. 27, Saturday	
Dec. 20, Monday	{ Christmas recess. Academic holiday.
Jan. 5, Wednesday	
Jan. 6, Thursday	Instruction resumes.
Jan. 21, Friday	Instruction ends.
Jan. 24, Monday	Final examinations begin.
Feb. 3, Thursday	Final examinations end.
Feb. 3, Thursday	Fall semester ends.

CALENDAR, SPRING SEMESTER, 1948-1949

Jan. 15, Saturday	{ Final date for applications for admission to the spring semester and credentials to be filed in the Registrar's Office.
Feb. 1, Tuesday	{ Applications for readmission to the spring semester to be filed with the Registrar by students not in attendance during the fall semester, 1948-1949.
Feb. 14, Monday	Spring semester begins.
Feb. 14, Monday	{ Consultation with advisers by old and new students. 9:00-10:30 A.M., required assembly of new students. Auditorium. 10:45 A.M.-12:00 M., meetings with department chairmen, new students. 1:30-4:30 P.M., individual counseling of students.
Feb. 15, Tuesday	{ Subject A Test, 9:00 A.M.-12:00 M. Auditorium. Psychological Test, 1:30-3:00 P.M., required of all new students. Declaration of Residence, 3:00-4:00 P.M. All new students and returning students not enrolled in fall semester, 1948-1949.
Feb. 16, Wednesday	Registration of all students, regular and special.
Feb. 17, Thursday	{ ROTC Examination, 9:00 A.M. Auditorium. Required of all lower division male students.
Feb. 18, Friday	ROTC Advanced Examination, 8:00-11:00 A.M. Auditorium.
Feb. 19, Saturday	{ 9:00 A.M.-12:00 M. Last day for turning in registration books to Registrar's Office without fine.
Feb. 21, Monday	Instruction begins.
Mar. 11, Friday	Last day for petitioning for change of program without penalty.
Mar. 25, Friday	{ Last day to file candidacy for teaching credential and/or the bachelor's degree for June, August, or September of 1949.
April 15, Friday	Close of mid-semester.
June 3, Friday	Instruction ends.
June 6, Monday	Final examinations begin.
June 16, Thursday	Final examinations end.
June 16, Thursday	Spring semester ends.

THE REGENTS OF THE UNIVERSITY

REGENTS EX OFFICIO

His Excellency, EARL WARREN, B.L., J.D.
Governor of California and President of
the Regents
Sacramento 14

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Lieutenant-Governor of California
State Building, Los Angeles 12

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Speaker of the Assembly
Chapman bldg, Fullerton

ROY E. SIMPSON, M.A.
State Superintendent of Public Instruc-
tion
531 Library and Courts bldg, Sacra-
mento 14

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ture
1228 N Broadway, Santa Ana

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President of the California Alumni Asso-
ciation
610 Title Insurance bldg, Los Angeles 13

ROBERT GORDON SPROUL, B.S., LL.D.,
Litt.D.
President of the University
250 Administration bldg, Berkeley 4
203 Administration bldg, Los Angeles 24

APPOINTED REGENTS

The term of the appointed Regents is sixteen years, and terms expire March 1 of the years indicated in parentheses. The names are arranged in the order of original accession to the Board.

JAMES KENNEDY MOFFITT, B.S., LL.D.
(1948)
599 Eighth st, San Francisco 3

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Crocker First National Bank bldg, San
Francisco 4

CHARLES COLLINS TEAGUE, LL.D. (1962)
Santa Paula

SIDNEY M. EHRLMAN, B.L., LL.B. (1948)
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Bank of America, 300 Montgomery st.,
San Francisco 4

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242 N Cañon dr, Beverly Hills

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(1956)
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EDWIN W. PAULEY, B.S. (1954)
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BRODIE E. AHLPORT, A.B. (1956)
639 S Spring st, Los Angeles 14

EDWARD H. HELLER, A.B. (1958)
600 Market st, San Francisco 4

NORMAN F. SPRAGUE, D.O. (1952)
1506 Lexington rd, Beverly Hills

MAURICE E. HARRISON, A.B., J.D., LL.D.
(1960)
111 Sutter st, San Francisco 4

VICTOR R. HANSEN, LL.B. (1962)
842 Title Insurance bldg, Los Angeles 13

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His Excellency, Earl Warren, B.L., J.D.
Governor of California
President
Sacramento 14

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Chairman
599 Eighth st, San Francisco 3

Robert M. Underhill, B.S.
Secretary and Treasurer
240 Administration bldg, Berkeley 4

James H. Corley, B.S.
Comptroller
250 Administration bldg, Berkeley 4

Jno. U. Calkins, Jr., B.L., J.D.
Attorney
910 Crocker bldg, San Francisco 4

Ashley H. Conard, B.L., J.D.
Associate Attorney for the Regents and
Attorney in Residence Matters
910 Crocker bldg, San Francisco 4

George D. Mallory, A.B.
Assistant Treasurer and Assistant Secre-
tary
240 Administration bldg, Berkeley 4

George F. Taylor, B.S.
Assistant Secretary
101 Administration bldg, Los Angeles 24

Marjorie J. Woolman
Assistant Secretary
240 Administration bldg, Berkeley 4

THE UNIVERSITY OF CALIFORNIA

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MONROE E. DEUTSCH, Ph.D., LL.D., Vice-President and Provost of the University, Emeritus.

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CLARENCE A. DYKSTRA, A.B., L.H.D., LL.D., Litt.D., Provost of the University.

ROBERT M. UNDERHILL, B.S., Secretary and Treasurer of the Regents.

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HIRAM W. EDWARDS, Ph.D., Director of Relations with Schools.

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WILLIAM ASHWORTH, M.A., Dean, Lower Division.

IRVING A. MATHER, Ph.D., Curriculum Coördinator.

LESTER B. SANDS, Ed.D., Registrar.

J. A. DUANE MUNCY, Business Manager.

HELEN E. SWEET, Ph.D., Acting Dean of Women.

PAUL A. JONES, Ed.D., Dean of Men.

LAWRENCE E. CHENOWETH, A.B., Placement Director.

WILFRED T. ROBBINS, M.D., Director of Student Health Service.

DONALD C. DAVIDSON, Ph.D., Librarian.

VELMA MORRELL, M.A., Housing Supervisor.

SANTA BARBARA COLLEGE

OFFICERS OF INSTRUCTION

- HENRY M. ADAMS, Ph.D.....Assistant Professor of History
A.B., Lehigh University, 1930; A.M., University of Southern California, 1934; Ph.D., Stanford University, 1937. At Santa Barbara College since 1947.
- WILLIAM F. AGGELER, Ph.D.....Assistant Professor of French
B.S., California Institute of Technology, 1925; M.A., University of California (Berkeley), 1932; Ph.D., 1939. At Santa Barbara College since 1940.
- WILLIAM D. ALTUS, Ph.D.....Associate Professor of Psychology
A.B., B.S., Kansas State Teachers College of Emporia, 1930; M.A., 1932; Ph.D., New York University, 1941. At Santa Barbara College since 1941.
- MARIAN H. ANDERSON, A.B.....Instructor in Physical Education
A.B., Pomona College, 1929. At Santa Barbara College since 1938.
- MORTIMER ANDRON, Ph.D.....Assistant Professor of Economics
A.B., University of California (Los Angeles), 1936; M.A., University of Oregon, 1939; Ph.D., University of Illinois, 1942. At Santa Barbara College since 1947.
- WILLIAM ASHWORTH, M.A.....Professor of English
A.B., Dartmouth College, 1909; M.A., Stanford University, 1922. At Santa Barbara College since 1919.
- PABLO AVILA, Ph.D.....Assistant Professor of Spanish
A.B., Stanford University, 1931; M.A., 1932; Ph.D., 1937. At Santa Barbara College since 1946.
- KURT BAER, Ph.D.....Associate Professor of Art
A.B., University of California (Berkeley), 1925; M.A., 1926; Ph.D., University of Southern California, 1936. At Santa Barbara College since 1947.
- HELEN M. BARNETT, M.A.....Associate Professor of Music
A.B., University of California (Berkeley), 1928; M.A., University of Southern California, 1932. At Santa Barbara College since 1921.
- ROBERT BEACHBOARD, Doctorat d'Universite....Assistant Professor of French
A.B., Pennsylvania State College, 1932; Doctorat d'Universite, Universite de Paris, 1939. At Santa Barbara College since 1946.
- DONALD J. BEAR.....Lecturer in Art
At Santa Barbara College since 1945.
- ALMA P. BEAVER, Ph.D.....Associate Professor of Psychology
A.B., University of California (Berkeley), 1926; M.A., Columbia University, 1928; Ph.D., 1931. At Santa Barbara College since 1941.

- JAMES R. BELL, B.S.....Assistant Professor of Industrial Arts
B.S., U. S. Naval Academy, 1923. At Santa Barbara College since 1946.
- M. JEAN BELLINGER, M.A.....Instructor in Physical Education
B.E., University of California (Los Angeles), 1939; M.A., New York University, 1945. At Santa Barbara College since 1945.
- VIRGIL L. BERGMAN, M.A.....Lecturer in Speech
B.S., Northwestern University, 1934; M.A., Stanford University, 1942. At Santa Barbara College since 1946.
- MARTHA L. BERNET, M.A.....Lecturer in English
A.B., Harris Teachers College, 1932; M.A., Washington University, 1940. At Santa Barbara College since 1947.
- ERNEST L. BICKERDIKE, Ph.D.....Associate Professor of Chemistry
A.B., University of Southern California, 1930; M.A., 1932; Ph.D., 1937. At Santa Barbara College since 1938.
- CHARLOTTE E. BIESTER, M.A.....Professor of Home Economics
A.B., University of Illinois, 1921; M.A., Columbia University, 1939. At Santa Barbara College since 1941.
- BARBARA D. BLANCHARD, Ph.D.....Assistant Professor of Zoölogy
A.B., University of California (Berkeley), 1933; Ph.D., 1939. At Santa Barbara College since 1946.
- RICHARD W. BOADEN, M.S. in Educ.....Instructor in Industrial Arts
A.B., Santa Barbara State College, 1944; M.S. in Educ., University of Southern California, 1946. At Santa Barbara College since 1946.
- ALICE V. BRADLEY, M.A.....Professor of Home Economics
B.S., University of Wisconsin, 1915; M.A., Whittier College, 1933. At Santa Barbara College since 1918.
- JOEL L. BRENNER, Ph.D.....Assistant Professor of Mathematics
A.B., Harvard College, 1930; M.A., Harvard University, 1931; Ph.D., 1936. At Santa Barbara College since 1948.
- MACKENZIE BROWN, Ph.D.....Associate Professor of Political Science
A.B., Pomona College, 1929; M.A., Stanford University, 1931; Ph.D., 1935. At Santa Barbara College since 1939.
- LLOYD BROWNING, B.Mus.....Assistant Professor of Music
B.Mus., Chicago Musical College, 1924. At Santa Barbara College since 1939.
- A. RUSSELL BUCHANAN, Ph.D.....Associate Professor of History
A.B., Stanford University, 1927; M.A., 1928; Ph.D., 1935. At Santa Barbara College since 1938.
- WALTER BUCHANAN, Ph.D.....Assistant Professor of Music
A.B., Maryville College, 1928; B.Mus., Ithaca College, 1932; M.Mus., University of Michigan, 1937; Ph.D., 1946. At Santa Barbara College since 1946.

- ENID L. BUTLER, M.A.E.....Instructor in Art
B.A.E., School of the Art Institute of Chicago, 1943; M.A.E., 1947. At Santa Barbara College since 1946.
- LORETTA M. BYERS, M.A.....Assistant Professor of Education
B.S., Northwestern University, 1933; M.A., Stanford University, 1937. At Santa Barbara College since 1940.
- CATHERINE E. CAMPBELL, M.A.....Assistant Professor of Art
B.E., University of California (Los Angeles), 1934; M.A., Claremont Colleges, 1943. At Santa Barbara College since 1944.
- ERNEST N. CARTER, A.B.....Instructor in Physical Education
A.B., Occidental College, 1927. At Santa Barbara College since 1934.
- LAWRENCE E. CHENOWETH, A.B.....Professor of Education
A.B., State Teachers College of Santa Barbara, 1930. At Santa Barbara College since 1940.
- VAN A. CHRISTY, Ph.D.....Professor of Music
B.S., University of Missouri, 1926; M.A., Columbia University, 1931; Ph.D., 1940. At Santa Barbara College since 1939.
- WALTER E. CONRAD, M.A.....Instructor in Sociology
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- DEMOREST DAVENPORT, Ph.D.....Assistant Professor of Zoölogy
A.B., Harvard University, 1933; M.A., Colorado College, 1934; Ph.D., Harvard University, 1937. At Santa Barbara College since 1946.
- TERRY H. DEARBORN, A.B.....Assistant Professor of Physical Education
A.B., Stanford University, 1934. At Santa Barbara College since 1940.
- RUTH M. DOOLITTLE, M.A.....Associate Professor of Art
A.B., State Teachers College of Santa Barbara, 1927; M.A., Stanford University, 1933. At Santa Barbara College since 1928.
- GLENN W. DURFLINGER, Ed.D.....Assistant Professor of Education
A.B., Colorado State College of Education, 1926; M.A., 1931; Ed.D., University of Oregon, 1941. At Santa Barbara College since 1941.
- THEODORE S. ELLENWOOD, A.B.....Instructor in Industrial Arts
A.B., San Jose State College, 1934. At Santa Barbara College since 1946.
- MARY M. ERICKSON, Ph.D.....Associate Professor of Zoölogy
A.B., Willamette University, 1927; M.A., University of California (Berkeley), 1929; Ph.D., 1935. At Santa Barbara College since 1939.
- EMANUEL E. ERICSON, M.A.....Professor of Industrial Arts
B.S., Stout Institute, 1919; M.A. in Educ., University of Southern California, 1932. At Santa Barbara College since 1925.
- CHARLES G. FALLIS, Ph.D.....Assistant Professor of Spanish and German
A.B., University of California (Berkeley), 1924; M.A., 1926; Ph.D., 1940. At Santa Barbara College since 1945.

- MAURICE E. FAULKNER, M.A.....Associate Professor of Music
B.S., Fort Hays Kansas State College, 1932; M.A., Columbia University,
1936. At Santa Barbara College since 1940.
- RENZO G. FENCI, M.A.....Lecturer in Art
M.A., R. Istituto d'Arte di Firenze, 1932. At Santa Barbara College
since 1947.
- JOSEPH FOLADARE, Ph.D.....Associate Professor of English
B.S., California Institute of Technology, 1930; M.A., Claremont Colleges,
1931; Ph.D., Yale University, 1936. At Santa Barbara College since 1940.
- NORMAN E. GABEL, Ph.D.....Assistant Professor of Anthropology
A.B., University of Michigan, 1928; M.A., University of Arizona, 1931;
Ph.D., Harvard University, 1941. At Santa Barbara College since 1947.
- HARRY GIRVETZ, Ph.D.....Associate Professor of Sociology
A.B., Stanford University, 1931; M.A., 1933; Ph.D., University of Cali-
fornia (Berkeley), 1937. At Santa Barbara College since 1937.
- STEPHEN S. GOODSPEED, Ph.D.....Instructor in Political Science
A.B., University of California (Berkeley), 1936; Ph.D., 1947. At Santa
Barbara College since 1946.
- FRED L. GRIFFIN, A.B.....Assistant Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1927. At Santa Barbara
College since 1924.
- JOHN M. GROEBLI, A.B.....Lecturer in Industrial Arts
A.B., Santa Barbara College, 1946. At Santa Barbara College since 1946.
- KARL A. GROSSENBACHER, Ph.D.....Assistant Professor of Botany
Ph.B., University of Wisconsin, 1933; Ph.D., University of California
(Berkeley), 1939. At Santa Barbara College since 1946.
- MARION H. GROVES, A.B.....Lecturer in Psychology
A.B., Phillips University, 1933. At Santa Barbara College since 1947.
- GENEVIEVE W. HAIGHT, M.A.....Assistant Professor of English
B.S.Ed., University of Idaho, 1928. M.A., Columbia University, 1933. At
Santa Barbara College since 1941.
- LEONARD H. HALL, Ph.D.....Instructor in Mathematics
A.B., University of California (Los Angeles), 1938; Ph.D., Brown Univer-
sity, 1947. At Santa Barbara College since 1947.
- J. FREDERICK HALTERMAN, Ph.D.....Professor of Economics
B.S., University of California (Berkeley), 1929; M.S., 1930; Ph.D., 1935.
At Santa Barbara College since 1936.
- GEORGE HAND, Ph.D.....Associate Professor of English
A.B., University of California (Berkeley), 1931; M.A., 1932; Ph.D., 1935.
At Santa Barbara College since 1945.

- JACOB L. HANSEN, M.A.....Assistant Professor of Art
A.B., Santa Barbara State College, 1941; M.A., Claremont Colleges, 1944.
At Santa Barbara College since 1939.
- THEODORE HARDER, M.A.....Associate Professor of Physical Education
A.B., Stanford University, 1929; M.A., 1943. At Santa Barbara College
since 1934.
- GARRETT J. HARDIN, Ph.D.....Assistant Professor of Bacteriology
B.S., University of Chicago, 1936; Ph.D., Stanford University, 1941. At
Santa Barbara College since 1946.
- THEODORE W. HATLEN, M.A.....Assistant Professor of Speech
A.B., University of Redlands, 1934; M.A., Cornell University, 1935. At
Santa Barbara College since 1945.
- WILLIAM E. HAYES, Ed.D.....Assistant Professor of Education
B.S. in Educ., New Jersey State College, 1937; B.S., Rutgers University,
1939; M.A., Columbia University, 1940; M.Ed., Duke University, 1941;
Ed.D., Columbia University, 1946. At Santa Barbara College since 1945.
- H. KLYNE HEADLEY, M.Mus.....Associate Professor of Music
B.Mus., College of the Pacific, 1928; M.Mus., Eastman School of Music,
1937. At Santa Barbara College since 1939.
- WINIFRED W. HODGINS, M.A.....Associate Professor of Physical Education
B.S., University of Washington, 1919; M.A., Columbia University, 1923. At
Santa Barbara College since 1919.
- JEAN L. HODGKINS, M.A.....Assistant Professor of Physical Education
B.E., University of California (Los Angeles), 1936; M.A., Columbia Uni-
versity, 1937. At Santa Barbara College since 1946.
- ELIZABETH H. IRISH, M.A.....Lecturer in Education
A.B., Arizona State College (Flagstaff), 1937; M.A., 1938. At Santa Bar-
bara College since 1947.
- WILLIAM M. IRVINE.....Assistant in Physical Education
At Santa Barbara College since 1945.
- EDWIN F. JONES, M.Mus.....Assistant Professor of Music
B.Mus., Butler University, 1936; M.Mus., University of Southern Califor-
nia, 1941. At Santa Barbara College since 1944.
- PAUL A. JONES, Ed.D.....Associate Professor of English
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Ed.D., Stanford University, 1947. At Santa Barbara College since 1937.
- CLYDE KEENER, A.B.....Instructor in Industrial Arts
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1941.
- MAYVILLE S. KELLIHER, A.B.....Instructor in Physical Education
A.B., Santa Barbara State College, 1934. At Santa Barbara College since
1947.

- EVELYN P. KENESSON, Ph.D.....Assistant Professor of Speech
A.B., University of Texas, 1936; M.A., University of Michigan, 1941;
Ph.D., 1945. At Santa Barbara College since 1947.
- WILLIAM F. KENNEDY, Ph.D.....Assistant Professor of Economics
A.B., Columbia University, 1933; M.A., 1936; Ph.D., University of Wisconsin, 1941. At Santa Barbara College since 1946.
- JAMES D. KIDDER, B.S., Captain, Infantry
Assistant Professor of Military Science and Tactics
B.S., United States Military Academy, 1943. At Santa Barbara College since 1947.
- ELAINE C. KINGSTON, B.S.....Instructor in Home Economics
B.S., University of Nebraska, 1940. At Santa Barbara College since 1946.
- JOSEPH E. LANTAGNE, M.A.....Assistant Professor of Physical Education
A.B., San Jose State College, 1936; M.A., Stanford University, 1940. At Santa Barbara College since 1941.
- ROY E. LAWHORNE.....Lecturer in Art
At Santa Barbara College since 1926.
- EDITH M. LEONARD, M.A.....Professor of Education
B.E., National College of Education, 1924; M.A., Claremont Colleges, 1930.
At Santa Barbara College since 1925.
- FLORENCE W. LYANS, M.A.....Assistant Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1927; M.A., University of Oregon, 1936. At Santa Barbara College since 1923.
- ROSCOE C. MAIN, M.D.....Instructor in Zoölogy
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- RUTH MAJOR, Ph.D.....Assistant Professor of Home Economics
A.B., University of Nebraska, 1934; M.S., University of Minnesota, 1939.
Ph.D., Washington State College, 1947. At Santa Barbara College since 1947.
- IRVING A. MATHER, Ph.D.....Professor of Education
B.S., Oregon State College, 1920; M.S., University of Oregon, 1930; Ph.D., University of Oregon, 1933. At Santa Barbara College since 1937.
- J. CHESLEY MATHEWS, Ph.D.....Assistant Professor of English
A.B., Furman University, 1927; M.A., Duke University, 1929; Ph.D., University of California (Berkeley), 1937. At Santa Barbara College since 1944.
- ROBERT A. MCCOY, M.Ed.....Instructor in Industrial Arts
B.S., Bowling Green State University, 1933; M.Ed., University of Colorado, 1946. At Santa Barbara College since 1947.
- RICHARD G. MCKEE, B.S., Colonel, Infantry
Professor of Military Science and Tactics
B.S., United States Military Academy, 1918. At Santa Barbara College since 1947.

- WILLARD L. MCRARY, Ph.D.....Assistant Professor of Chemistry
B.S., California Institute of Technology, 1936; M.S., 1938; Ph.D., 1940.
At Santa Barbara College since 1940.
- FLORENCE C. MEREDITH, M.A.....Professor of Home Economics
A.B., Pomona College, 1913; M.A., Columbia University, 1923. At Santa
Barbara College since 1923.
- HAROLD J. MILLER, M.S.....Assistant Professor of Industrial Arts
B.S., University of Illinois, 1931; M.S., Indiana University, 1938. At Santa
Barbara College since 1946.
- LYNNE C. MONROE, Ed.D.....Associate Professor of Industrial Arts
B.S., Kansas State Teachers College (Pittsburg), 1928; M.S., Iowa State
College, 1932; Ed.D., University of Missouri, 1939. At Santa Barbara Col-
lege since 1939.
- ELEANOR E. MORRISSEY, M.A.....Instructor in Art
A.B., Santa Barbara State College, 1944; M.A., Mills College, 1947. At
Santa Barbara College since 1944.
- ELIZABETH MOSLE, A.B.....Instructor in Art
A.B., Santa Barbara State College, 1941. At Santa Barbara College since
1945.
- CHARLES F. MUDGETT, B.S., Lieutenant-Colonel, Infantry
Associate Professor of Military Science and Tactics
B.S., University of North Dakota, 1933. At Santa Barbara College since
1947.
- CORNELIUS H. MULLER, Ph.D.....Assistant Professor of Botany
A.B., University of Texas, 1932; M.A., 1933; Ph.D., University of Illinois,
1938. At Santa Barbara College since 1945.
- RALPH K. NAIR, M.S.....Assistant Professor of Industrial Arts
B.S., Kansas State Teachers College (Pittsburg), 1935; M.S., 1939. At
Santa Barbara College since 1941.
- GWYNNE NETTLER, Ph.D.....Assistant Professor of Sociology
A.B., University of California (Los Angeles), 1934; M.A., Claremont Col-
leges, 1936; Ph.D., Stanford University, 1945. At Santa Barbara College
since 1946.
- H. EDWARD NETTLES, Ph.D.....Professor of History
B.S. in Educ., University of Missouri, 1920; M.A., 1923; Ph.D., Cornell
University, 1928. At Santa Barbara College since 1930.
- ELMER R. NOBLE, Ph.D.....Associate Professor of Zoölogy
A.B., University of California (Berkeley), 1931; M.A., 1933; Ph.D., 1936.
At Santa Barbara College since 1936.
- JOHN M. O'GORMAN, Ph.D.....Assistant Professor of Chemistry
B.S., University of California (Berkeley), 1941; M.S., California Institute
of Technology, 1942; Ph.D., 1946. At Santa Barbara College since 1946.

- UPTON S. PALMER, M.A.....Lecturer in Speech
A.B., University of Redlands, 1928; M.A., State University of Iowa, 1930.
At Santa Barbara College since 1947.
- PAUL PÉRIGORD, Ph.D.....Professor of French Civilization
A.B., University of France, 1901; M.A., University of Chicago, 1912; Ph.D.,
University of Minnesota, 1924. At Santa Barbara College since 1947.
- ELSIE A. POND, M.A.....Associate Professor of Education
A.B., Stanford University, 1919; M.A., 1920. At Santa Barbara College
since 1924.
- JOHN T. PORTER, A.B.....Instructor in Industrial Arts
A.B., Santa Barbara College, 1942. At Santa Barbara College since 1936.
- EVA J. PROULX, M.A.....Instructor in French
A.B., University of Paris, 1936; M.A., Columbia University, 1939. At Santa
Barbara College since 1945.
- EDA RAMELLI, M.A.....Professor of Spanish
A.B., University of California (Berkeley), 1913; M.A., Stanford University,
1926. At Santa Barbara College since 1923.
- ANDRES R. RAMON, LL.M.....Lecturer in Spanish
A.B., Institute General y Tecnico, Almeria, Spain, 1912; LL.M., University
of Granada, Spain, 1919. At Santa Barbara College since 1946.
- STANLEY E. RAUCH, Ph.D.....Assistant Professor of Mathematics
A.B., Reed College, 1937; M.S., University of Washington, 1939; Ph.D.,
Stanford University, 1941. At Santa Barbara College since 1941.
- LYLE G. REYNOLDS, M.A.....Assistant Professor of Physical Education
A.B., University of California (Berkeley), 1935; M.A., Stanford University,
1947. At Santa Barbara College since 1947.
- ROBERT E. ROBINSON, Ph.D.....Assistant Professor of English
A.B., University of California (Los Angeles), 1927; M.A., University of
California (Berkeley), 1929; Ph.D., 1942. At Santa Barbara College since
1942.
- LESTER B. SANDS, Ed.D.....Associate Professor of Education
A.B., Stanford University, 1929; M.A., 1933; Ed.D., 1939. At Santa Bar-
bara College since 1946.
- JOSEPH J. SAYOVITZ, M.S.....Instructor in Industrial Arts
B.S., Minnesota State Teachers College (St. Cloud), 1941; M.S., Iowa State
College, 1947. At Santa Barbara College since 1947.
- DOROTHY M. SCHNELL, M.S.....Assistant Professor of Home Economics
B.S., Kansas State Teachers College (Pittsburg), 1928; M.S., University of
Minnesota, 1933. At Santa Barbara College since 1942.
- ARTHUR O. SCHRICKER, M.A.....Instructor in Industrial Arts
B.S., Teachers College of Connecticut, 1945; M.A., New York University,
1947. At Santa Barbara College since 1947.

- WARREN E. SCHUTT, A.B.....Lecturer in English
A.B., Oxford University, 1907; A.B., Cornell University, 1921. At Santa Barbara College since 1946.
- KERMIT A. SEEFELD, M.Ed.....Assistant Professor of Industrial Arts
B.Ed., Oshkosh State Teachers College, 1932; M.Ed., Colorado State College of Agriculture and Mechanic Arts, 1946. At Santa Barbara College since 1946.
- ELIZABETH L. SEHON, M.A.....Associate Professor of Physical Education
B.S., University of Wisconsin, 1922; M.A., Ohio State University, 1931. At Santa Barbara College since 1936.
- ALLEN E. SENEAR, Ph.D.....Instructor in Chemistry
A.B., Williams College, 1941; Ph.D., California Institute of Technology, 1946. At Santa Barbara College since 1947.
- HAZEL W. SEVERY, M.A., D.Sci.O.....Professor of Chemistry
A.B., Stanford University, 1907; M.A., 1921; D.Sci.O., Osteopathic College of Physicians and Surgeons, 1914. At Santa Barbara College since 1914.
- KENNETH M. SIMPSON, Ph.D. Assistant Professor of Physics
B.S., Lehigh University, 1929; M.A., University of California (Berkeley), 1937; Ph.D., 1940. At Santa Barbara College since 1946.
- JOHN C. SNIDECOR, Ph.D. Associate Professor of Speech
A.B., University of California (Berkeley), 1931; M.A., State University of Iowa, 1937; Ph.D., 1940. At Santa Barbara College since 1940.
- WINSOR SOULE, B.S.....Lecturer in Industrial Arts
A.B., Harvard University, 1906; B.S., Massachusetts Institute of Technology, 1907. At Santa Barbara College since 1945.
- ROY L. SOULES, M.S.....Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1926; M.S., University of Southern California, 1935. At Santa Barbara College since 1927.
- FRANCES M. SPIKE, M.S.....Lecturer in Home Economics
B.S., Oregon State College, 1925; M.S., 1936. At Santa Barbara College since 1942.
- JEANNETTE STEARNS, M.A. Assistant Professor of Home Economics
B.S., Kansas State College, 1938; M.A., University of Syracuse, 1942. At Santa Barbara College since 1947.
- JOSEPH S. STULL, Ph.D. Instructor in English
A.B., University of Rochester, 1933; A.M., 1935; Ph.D., State University of Iowa, 1940. At Santa Barbara College since 1947.
- DOUWE STUURMAN, B.Litt. Assistant Professor of English
A.B., Calvin College, 1931; M.A., University of Oregon, 1933; B.Litt., Oxford University, 1936. At Santa Barbara College since 1941.
- HELEN E. SWEET, Ph.D. Associate Professor of Zoölogy
A.B., Pomona College, 1928; M.A., Claremont Colleges, 1930; Ph.D., University of Chicago, 1937. At Santa Barbara College since 1933.

- LOUIE S. TAYLOR, M.A. Assistant Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1934; M.A., Claremont Colleges, 1939. At Santa Barbara College since 1934.
- DOROTHY DENNY VANDEMAN, M.A. Assistant Professor of Education
A.B., Whittier College, 1931; M.A., Claremont Colleges, 1934. At Santa Barbara College since 1940.
- ANNE S. VANDENBERG, A.B. Assistant in Home Economics
A.B., Santa Barbara College, 1944. At Santa Barbara College since 1948.
- GLADYS R. VAN FOSSEN, M.A. Associate Professor of Physical Education
A.B., University of Minnesota, 1921; M.A., Columbia University, 1931. At Santa Barbara College since 1927.
- EARL F. WALKER, M.A. Assistant Professor of Chemistry
A.B., Nebraska Wesleyan University, 1909; Ph.G., University of Nebraska, 1912; M.A., 1915. At Santa Barbara College since 1922.
- JAMES L. WALTERS, B.S. Instructor in Botany
B.S., University of Chicago, 1937. At Santa Barbara College since 1947.
- LEWIS F. WALTON, Ph.D. Assistant Professor of Mathematics
B.S., Emory University, 1929; M.S., 1931; Ph.D., University of California (Berkeley), 1940. At Santa Barbara College since 1946.
- ROBERT W. WEBB, Ph.D. Associate Professor of Geology
A.B., University of California (Los Angeles), 1931; M.S., California Institute of Technology, 1932; Ph.D., 1937.
- HARRINGTON WELLS, M.A. Associate Professor of Science Education
A.B., Stanford University, 1923; M.A., 1924. At Santa Barbara College since 1929.
- HANS WELTIN, Ph.D. Assistant Professor of Physics
A.B., University of California (Berkeley), 1937; Ph.D., 1943. At Santa Barbara College since 1947.
- SCHURER O. WERNER, M.A. Associate Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1929; M.A., Claremont Colleges, 1941. At Santa Barbara College since 1927.
- PATRICIA H. WHITAKER, M.A. Instructor in Physical Education
B.S., University of California (Los Angeles), 1943; M.A., Mills College, 1944. At Santa Barbara College since 1946.
- E. ALLAN WILLIAMS, Ph.D. Assistant Professor of Physics
A.B., Morningside College, 1929; M.S., University of Washington, 1931; Ph.D., 1941. At Santa Barbara College since 1941.
- STANLEY L. WILLIAMSON, B.S. Associate Professor of Physical Education
B.S., University of Southern California, 1933. At Santa Barbara College since 1941.

- LAWRENCE WILLSON, Ph.D.....Assistant Professor of English
A.B., Wesleyan University, 1934; A.M., Yale University, 1942; Ph.D., 1944.
At Santa Barbara College since 1947.
- CLAYTON H. WILSON, JR., M.Mus.....Assistant Professor of Music
B.Mus.Ed., Northwestern University, 1941; M.Mus., 1942. At Santa Bar-
bara College since 1947.
- MARIE WILSON, M.S.....Instructor in Home Economics
B.S., Iowa State College, 1925; M.S., Colorado State College of Agriculture
and Mechanic Arts, 1940. At Santa Barbara College since 1946.
- WILTON M. WILTON, M.A.....Instructor in Physical Education
A.B., Santa Barbara State College, 1936; M.A., Claremont Colleges, 1947.
At Santa Barbara College since 1936.
- FRANCES WISHARD, B.Mus.....Instructor in Music
B.Mus., Butler University, 1934. At Santa Barbara College since 1945.
- SAMUEL A. WOFSEY, Ph.D.....Instructor in Spanish
LL.B., Washington and Lee University, 1916; A.B., University of Wiscon-
sin, 1922; M.A., 1923; Ph.D., 1927. At Santa Barbara College since 1946.
- C. DOUGLAS WOODHOUSE, LL.M.....Lecturer in Mineralogy
A.B., Williams College, 1910; LL.B., Columbia University, 1913; LL.M.,
University of California (Berkeley), 1925. At Santa Barbara College since
1938.

THE UNIVERSITY OF CALIFORNIA

FOUNDED 1868

THE UNIVERSITY OF CALIFORNIA is composed of academic colleges, professional schools, divisions, departments of instruction, museums, libraries, research institutes, bureaus, and foundations, and the University of California Press, situated on eight different campuses throughout the State, namely: Berkeley, Los Angeles, San Francisco, Davis, Riverside, Mount Hamilton, La Jolla, and Santa Barbara. The University also maintains several field stations of the Agricultural Experiment Station in various parts of the State.

SANTA BARBARA COLLEGE

SURVEY OF CURRICULA

Santa Barbara College offers instruction in undergraduate work leading to the bachelor's degree with majors in art, arcrafts, biological science, botany, chemistry, economics, education, English, history, home economics, industrial arts, mathematics, music, physical education, physical science, political science, psychology, social science, sociology, Spanish, speech, and zoölogy. Courses which satisfy the predental, preengineering, prelegal, premedical, and prenursing requirements are offered to those students interested in preparing for entrance into a professional school. The degree of Bachelor of Arts is also offered with a combination or group major.

Santa Barbara College also offers curricula leading to the kindergarten-primary, elementary, and general junior high school credentials, and to the elementary school administration and supervision credentials; and supervises the educational program for the special secondary school credentials in art, home economics, industrial education, music, physical education, and speech.

REGULAR AND SUMMER SESSIONS

The academic calendar of Santa Barbara College is divided into two equal semesters, the fall semester beginning in September and the spring semester ending in June. In addition, there are two six-week summer sessions. The Summer Sessions offer courses in all the major departments. Teacher education is emphasized through an Elementary Demonstration School and a Clinical School for children.

LIBRARY FACILITIES

The College library is a selected collection of over 40,000 books and pamphlets. Over 500 current periodicals and newspapers are received. The main collection, the reference service, has offices on the second floor of the Administration Building. The reserved book room is in temporary building "A" and a branch is maintained in the Industrial Education Building. Smaller collections are temporarily in departments of instruction.

The Wyles Collection of American history (1860–1945), gift of the late William Wyles of Santa Barbara, contains some 13,000 books, pamphlets, and bound periodicals. It is increased annually by gifts from the Wyles Library Board.

The Santa Barbara Public Library contains approximately 150,000 bound volumes and subscribes to over 400 periodicals and newspapers. Special collections of interest to students are art, music, reference, children's literature, and state and federal documents. Borrowing privileges are available to Santa Barbara College students.

VETERANS' PROGRAMS

All returning servicemen and servicewomen who wish to enroll in college should first contact the Coördinator of Veterans Affairs, either by letter or in person.

Veterans entering Santa Barbara College as new or transfer students should bring either the original or supplementary certificate of eligibility of entitlement from the United States Veterans Administration.

The following provisions for educational assistance for veterans are now in operation at Santa Barbara College:

1. Public Law 16—for veterans with disability over 10 per cent.
2. Public Law 346—for all servicemen and servicewomen. This law is known as the "G.I. Bill of Rights."
3. State of California Veterans Welfare Board—for servicemen and servicewomen who are bona fide residents of California.
4. Provision for widows of veterans and veterans' dependents either under the United States Veterans Administration or State of California.

COÖPERATING MUSEUMS

By special arrangements the Santa Barbara Museum of Art and the Santa Barbara Museum of Natural History, both with large private endowments and excellent reputations and facilities, and Santa Barbara College work together along the special lines represented by the museums. A number of college courses have been carried on during the past few years at the Museum of Natural History, and important programs and classes at the Museum of Art have been arranged for the College students.

UNIVERSITY EXTENSION

University Extension offers facilities to men and women who seek some form of higher education, but are prevented from taking up residence at the University. University Extension, Santa Barbara Area, in coöperation with the Community Institute, provides educational opportunities to adults living in and around Santa Barbara. Extension offerings are also available for groups or individuals located within the larger area served by the Santa Barbara Office,

principally San Luis Obispo, Ventura, and Santa Barbara Counties. The work is carried on by means of class instruction, correspondence, institutes and lectures, singly or in series.

Persons desiring to take advantage of the facilities offered by University Extension, either in Santa Barbara or in any other part of the State, may receive detailed information on request. Address the Office of University Extension, 906 Santa Barbara Street, Santa Barbara, California.

ADMISSION TO SANTA BARBARA COLLEGE

REQUIREMENTS FOR ADMISSION

Admission to Undergraduate Status

AN APPLICANT who wishes to enter Santa Barbara College must fulfill the general requirements for admission, as set forth below. Application blanks may be obtained from the Registrar, Administration Building, University of California, Santa Barbara College, Santa Barbara, California.

An applicant is not accepted for admission until he has received a written statement to that effect.

No student is allowed to register after the first two weeks of regular session.

Admission to Freshman Standing

Graduates of accredited high schools may enter the University of California, Santa Barbara College, in freshman standing provided the following conditions have been satisfied.

- I. Applicants who present evidence of having been accepted as regular students at the University of California, at either Berkeley or Los Angeles, may be admitted as regular students at the Santa Barbara College.
- II. Graduates of four-year high schools must complete a minimum of 12 units with an average grade of B or higher from the following 16 required units (scholarship averages are computed on the basis of semester grades rather than year grades) :
 - (a) English.....3 units. This requirement must be satisfied by credit designated as “English” and consists of six semesters of preparation in written and oral expression and in literature.
 - (b) History.....1 unit. This requirement may be fulfilled by any two semesters of United States history, or United States history and civics.
 - (c) Mathematics.....1 unit. This may be satisfied by any two-semester course in high school mathematics.
 - (d) Restricted Electives.....4 units. This requirement may be satisfied by eight semesters of high school work taken in the fields of English, social science, foreign language, mathematics, and natural science, in addition to the units presented in satisfaction of (a), (b), and (c) above.
 - (e) Unrestricted Electives.....7 units. This requirement may be satisfied by any fourteen semesters’ work taken in fields offered in the high school curriculum, exclusive of physical education.

III. Graduates of three-year high schools must complete a minimum of 9 units with an average grade of B or higher from the following 12 units as described above under the four-year program:

- (a) English.....2 units. This requirement must be satisfied by credit designated as "English" and consists of four semesters of preparation in written and oral expression and in literature.
- (b) History.....1 unit. This requirement may be fulfilled by any two semesters of United States history, or United States history and civics.
- (c) Restricted Electives.....3 units. This requirement may be satisfied by six semesters of high school work taken in the fields of English, social science, foreign language, mathematics, and natural science, in addition to the units presented in satisfaction of (a) and (b) above.
- (d) Unrestricted Electives.....6 units. This requirement may be satisfied by any twelve semesters' work taken in fields offered in the high school curriculum, exclusive of physical education.

Responsibility of High School Authorities

The responsibility for the recommending of high school students for college lies with the high school authorities, and students naturally will be guided by their respective principals in making their preparation for entrance to the College.

Upon the high school authorities rests also the responsibility for determining the scope and content of courses preparatory to the admission of their students to the College and for certifying each course to the College under the proper subject designation of the high school program. It is, therefore, essential that high school principals and faculty advisers be familiar with the admission recommendations and requirements of Santa Barbara College in order to prepare prospective entrants to meet those requirements.

Admission to Advanced Standing

Applicants for admission to advanced standing with less than 60 accepted units must fulfill admission subject requirements on the same basis as new freshman students. High school deficiencies may be fulfilled by means of courses in University Extension, correspondence schools, accredited high schools, colleges and junior colleges, or by examination; thereafter, in work taken at Santa Barbara College, they must maintain an average of C or better.

Applicants for admission to advanced standing must have maintained an average of at least 1.0 (C) in all work attempted in college.

Other Methods of Admission

Admission by Examination. In exceptional cases, students are sometimes admitted by examination. Applicants for admission by examination must have the approval of the Committee on Admissions.

Applicants over twenty-one years of age, who are not high school graduates and who do not possess equivalent preparation but whose score on a standard aptitude test indicates ability to perform satisfactory college work in the chosen curriculum, may be given provisional admission as special students, but such persons may be granted regular status only upon removal of all deficiencies, and upon the satisfactory completion of one full semester's college work in the chosen curriculum.

Such applicants must take a college entrance examination upon fundamental high school subjects. A student receiving an acceptable score will be granted admission in regular status in lieu of high school graduation.

Admission as Special Students. Special students are persons who are over 21* years of age and are working neither for a degree nor a credential. Their admission will be considered by the Committee on Admissions on the basis of the individual's background, qualifications, needs, and purposes. An applicant for special status may be required to take an aptitude test and the examination in Subject A. To attain regular status, special students must remove subject and scholarship deficiencies as outlined in Paragraphs I, II, and III.

Methods of Removing Entrance Deficiencies

Subject Deficiencies. Each high school subject deficiency may be removed by subject examination or by a course taken in postgraduate high school, University Extension, a correspondence school, junior or state college, or summer sessions in areas accepted by the Admissions Committee as an equivalent of the deficiency. Restricted and unrestricted electives may also be made up in the aforementioned manner.

Work taken to make up deficiencies in admission is not transferable for college graduation. Work taken beyond the deficiency courses at the college level may be accepted by the Admissions Committee.

Scholarship Deficiencies. Where the student is deficient in scholarship or grade-point average from high school (i.e., basis of A-3, B-2, C-1, D-0 grade points), the amount of work to be required will vary according to the degree of the deficiency. The scale on page 29, based on a B average or 2.00 on 12 units for the four-year high school graduate and 9 units for the three-year high school graduate, is in force.

* This minimum age requirement may be waived for men and women having records of service with the armed forces of the United States who desire to enter the University as special students.

<i>Scholastic Deficiency by Grade-Point Average</i>	<i>Requirements for Eliminating Scholastic Deficiencies by Work Acceptable from Extension, Accredited Post-graduate High School, Correspondence, or any approved institution</i>
1.75 to 1.99.....	6 units college work with grade C or better; or 2 high school credits with average grade of B.
1.50 to 1.74.....	9 units college work with grade C or better; or 3 high school credits with average grade of B.
1.25 to 1.49.....	12 units college work with grade C or better; or 4 high school credits with average grade of B.
1.00 to 1.24.....	15 units college work with grade C or better; or 5 high school credits with average grade of B.

Work that is specified as making up scholarship deficiencies at the college level is acceptable in transfer for college graduation.

CLASSIFICATION OF STUDENTS

Students are classified as follows:

1. Regular students are those who have been accepted in regular status.
2. Probationary students are those who have serious deficiencies in scholarship. A student on probation may not apply for graduation. (See *Probation and Dismissal* on page 34.)
3. Special students are those who are over twenty-one years of age and who are neither preparing to teach nor working toward a degree.

GENERAL REGULATIONS, SANTA BARBARA COLLEGE

CERTAIN general regulations govern residence and study in the academic departments.

REGISTRATION PROCEDURE

No student in the departments of Santa Barbara College may undertake any work for credit toward a degree without registering for the work with the Registrar; such registration must be accepted by the proper faculty before the work proposed is undertaken.

Each student must register *in person* in Santa Barbara College on the day appointed for that purpose, at the beginning of each semester. Registration procedure includes the completion of admission forms; payment of fees, obtaining signatures of the Health Officer, the Dean of Men or the Dean of Women, and the Department Chairman; enrollment in courses; and presentation of completed registration book to the Registrar.

LATE ADMISSION AND REGISTRATION

Failure to register within the prescribed time limit is certain to cause difficulty in the making of a satisfactory program and to retard the progress both of the student himself and of each class to which he may be admitted. Late registration may be permitted only under special circumstances.

A student who registers after the opening of the session and who later is found to be deficient in his work may not plead late admission as an excuse for his deficiency.

A fee of \$2 is charged for late registration; this fee applies both to old and new students, nonveteran and veteran students.

No student may register for admission *after the first two weeks* of instruction.

EXAMINATIONS AT ENTRANCE

Medical and Physical Examination. All new students must appear before the College Physician and pass a medical and physical examination to the end that the health of the College community, as well as the individual student, may be safeguarded. Evidence, satisfactory to the College Physician, of successful immunization against smallpox is required. Tests for tuberculosis are a part of the examination of all new students. Applicants for admission who have contagious diseases, or who are subject to serious physical disturbances, will be excluded.

Before coming to the College, every student is urged to have his own physician examine him for fitness to carry on college work, and to have all defects capable of remedial treatment, such as diseased tonsils or imperfect eyesight, corrected. This precaution will prevent possible loss of time from studies. For regulations regarding physical examinations for candidates for teacher credentials, see page 74.

Subject A: English Composition. With the exceptions noted below, every undergraduate entrant must, at the time of his first registration in the College, take an examination known as the *Examination in Subject A*, designed to test his ability to write English without gross errors in spelling, grammar, sentence structure, and punctuation.

The examination in Subject A is given at the opening of the fall semester, the spring semester, and the summer sessions. A second examination for late entrants is given not later than two weeks after the first examination in each semester; for this examination a fee of \$1 is charged.

Papers submitted in the examination are rated as either "passed" or "failed." A student who is not present at the examination in Subject A, which he is required to take, will be treated as one who has failed. No student may have the privilege of reëxamination in Subject A.

Every student who does not pass the examination in Subject A must immediately enroll for one semester in the *Course in Subject A*, without unit credit toward graduation. Should any student fail in the Course in Subject A he will be required to repeat it in the next succeeding semester of his residence in the College.

A student who maintains in the Course in Subject A a grade of A is permitted, on recommendation of the Department of English, to withdraw from the course at a date determined by that Department and is given credit for Subject A.

No student will be granted the bachelor's degree until he has satisfied the Subject A requirement.

In grading, conditions, and failure, the Course in Subject A is governed by the same rules as other College courses.

The requirement in Subject A may be met by obtaining a satisfactory rating in the College Entrance Board Examination in English 1, or by passing any Subject A examination given under the jurisdiction of the University of California.

A student who enters Santa Barbara College with credentials showing the completion elsewhere, with a grade not lower than C, of one or more college courses in English composition (with or without unit credit) is exempt from the requirement in Subject A.

College Aptitude Test. Every new student, with the exception of an entering student holding a bachelor's degree, is required to take an aptitude test at entrance, at the time scheduled on the Calendar. A fee of 50 cents is charged for this test, payable on the day of registration. An additional fee of \$1 is charged to all students who take a later test.

TRANSCRIPT OF RECORD

Each student will be provided, upon request to the Registrar, with one official transcript (copy) of his college record, without charge. After the first request a minimum charge of \$1 is made for each additional transcript of record. Stu-

dents who plan to enter the teaching profession or to seek other employment following graduation should provide themselves with one or more transcripts of their records so that at all times they may be able to show official evidence of attendance at the College. There is no charge for any transcript for students entering military service.

Application for a transcript of record should be made directly to the Registrar well in advance of the time when the record will be needed by the applicant.

GRADES OF SCHOLARSHIP; GRADE POINTS

Scholarship:

The result of the student's work in each course, including courses in which credit is obtained by examination, is reported to the Registrar in one of six scholarship grades, four of which are passing, as follows: A, excellent; B, good; C, average; D, barely passing; E, incomplete; and F, failure. Grades are not otherwise defined, as for example, by percentage, or by a rule of stipulating the manner in which the several grades shall be distributed.

Grade E indicates an incomplete record at the end of the semester, but one which may be changed to a passing grade by passing a further examination or by performing other tasks required by the instructor. Grade E will become an F if not removed within six weeks after the student's return to the College. If a longer time elapses, the privilege of further examination or tasks may be denied by the instructor. If a student's work is interrupted during the last three weeks of the semester by circumstances beyond his control, he may be given a grade of E for the course.

Withdrawal from Class:

All withdrawals from class must be made by petition. A grade of F will be given for all withdrawals from class without petition. The student is responsible for making out and presenting his petition for any change of program. Upon presentation of petitions, marks for withdrawals will be assigned in conformity with the following schedule:

First Week through the Third Week of the Semester:

W—When this mark is given, the units are eliminated from the student's program. The three-week period will be allotted for adjustment of program without penalty.

Fourth Week through the Eighth Week of the Semester:

Instructors will not be expected to evaluate student progress in a class before the mid-semester notice period, but they may be asked to contribute information concerning the student.

WF—When this mark is given, the units of the course are counted on the student's program and no grade points are conferred. This mark is given when the student withdraws for reasons which might normally be considered under his control.

W—This mark is given for approved withdrawals for reasons beyond the student's control.

Ninth Week through the Twelfth Week of the Semester:

Instructors will be asked to evaluate student progress in terms of P (Passing) or F (Failure) when petitions for withdrawal have been approved.

WP—This mark is given when a student has earned a passing grade up to the time of withdrawal. Neither the units nor the grade points for the course will be counted on the program, or on the permanent record.

WF—This mark is given when a student has earned a grade of failure. While the student is allowed to drop the course, the units will be counted on the program and permanent record, but no grade points will be allowed.

Thirteenth Week to the End of the Semester:

Withdrawals will not be allowed except for emergency situations. The committee acting on petitions will determine after consultation with the instructor the mark to be assigned: i.e. W, WP, WF, or F.

Grade Points:

Grade points are assigned to the respective grades of scholarship as follows: for each unit of credit the scholarship grade A is assigned 3 points; B, 2 points; C, 1 point; D, E, and F, no points. In order to graduate a student must have obtained at least as many grade points as there are units in the total credit value of all courses undertaken by him at Santa Barbara College. (See *Probation and Dismissal*, page 34.)

Report of Grades:

Any student who desires to obtain his scholarship grades must, at the end of each semester, deposit with the Registrar a self-addressed, stamped envelope for the return of his report.

OTHER PROVISIONS CONCERNING SCHOLARSHIP

Mid-semester Warning:

Warning notices are sent at mid-semester to students who have received an average of D or F in any courses. A student who at the middle of any semester has received these unsatisfactory grades in two or more subjects shall be interviewed by the Dean of Men or the Dean of Women.

Failures:

A student who fails in the first semester of a course may not continue for the second semester of that course until the failure is removed, except upon special permission of the instructor. If such a student is permitted to continue a course the second semester and is reported as failing at mid-semester, he is thereby automatically dropped from the course, and is given a grade of F.

A student receiving any grade below C in the lower division may, provided

he receives permission from the Dean of the Lower Division, repeat the course and be given the grade and grade points earned in the repetition. In computing total "units attempted," the student shall be credited only once for the units of a repeated course, and his grade-point average shall be calculated in terms of the units accredited.

A student who receives grade B, C, or D in any course is not allowed a reëxamination for the purpose of raising the grade.

Probation and Dismissal:

Work is considered satisfactory if a student maintains an average scholarship grade of C or higher. When his work falls below C average, he will be placed on probation or be disqualified for further attendance at the College, according to the table of grade-point deficiencies. Students on probation may not carry more than $13\frac{1}{2}$ units of work (including physical education activity) per semester. Students who are on probation may not apply for graduation.

A. *Probation.* A student shall be placed on probation if his record at the end of any indicated semester of attendance shows the following grade-point deficiency:

- (1) six to nine grade points at the end of his first semester.
- (2) four to seven grade points at the end of his second semester.
- (3) three to five grade points at the end of his third semester.
- (4) two to three grade points at the end of his fourth semester.
- (5) one grade point at the end of his fifth semester.

B. *Dismissal.* A student shall be subject to dismissal from Santa Barbara College if he is placed on probation for the third successive semester or if his record at the end of any indicated semester of attendance shows the following grade-point deficiency:

- (1) ten or more grade points at the end of his first semester.
- (2) eight or more grade points at the end of his second semester.
- (3) six or more grade points at the end of his third semester.
- (4) four or more grade points at the end of his fourth semester.
- (5) two or more grade points at the end of his fifth semester.
- (6) one or more grade points at the end of his sixth semester.

Reinstatement:

Reinstatement after dismissal is possible upon the successful completion of one semester of study in an accredited institution or of employment acceptable to the Dean of Men or Dean of Women. A student who is disqualified may request the Committee on Probation and Reinstatement for a hearing. Reinstatement is established upon the approval of this committee.

Lower division work taken in a recognized collegiate institution during the period of disqualification may be accepted upon the approval of the Committee on Probation and Reinstatement, provided the work was completed with a grade above average. The program to be completed before reinstatement

should be approved by the Committee on Probation and Reinstatement of this College. A transcript of record of such work, signed by the Registrar of the college attended, should accompany the petition for readmission. Credit in upper division courses taken in order to clear disqualification may be transferred if the quality of scholarship is grade A or B.

Upon reinstatement a student is on probation, and may remain enrolled in the College for two semesters if he maintains an average semester grade of C or higher; he may be removed from probation only upon achieving an average grade of C in all college work undertaken. Failure to maintain this average generally results in a second dismissal. A student who has been dismissed a second time is not ordinarily eligible for reinstatement.

All transcripts of record issued to students who have not attained an average grade of C will be stamped Provisional, Probational, or Dismissed. For transcripts of record for those who wish to transfer to other institutions, see page 31.

LEAVE OF ABSENCE AND HONORABLE DISMISSAL

A brief leave of absence, to expire on a definite date, may be issued to a student who finds it necessary to be absent from class for reasons beyond his control. No excuse for absence will relieve the student from the necessity of completing all the work of each course to the satisfaction of the instructor in charge. Petition forms for leaves of absence, with complete instructions, may be obtained at the Office of the Dean of Men or the Dean of Women.

Leave of absence from examinations. An excuse to be absent from any announced examination must be obtained by written permission from the Dean of Men or Dean of Women and the instructor in charge of the examination.

If a student cannot attend a meeting of a class, he should apply for leave to the instructor in charge. If a student cannot attend a final examination, he may apply by petition through the office of the Dean of Men or Dean of Women for deferred examination.

An *honorable dismissal* or an *indefinite leave of absence* may, upon petition, be issued to any student provided he complies with the instructions on the form of petition, which may be obtained from the Registrar.

Discontinuance without notice. Students who discontinue their work without formal leave of absence do so at the risk of having their registration privileges curtailed or entirely withdrawn.

STUDENTS' PROGRAMS

Average and minimum programs. An average program is 15 units of work per semester. However, a student who is physically below normal may be required to carry a reduced program.

Twelve units of work constitute a minimum program for a regular student (except during the period of directed teaching) and is the lowest limit permitted for those engaged in student and intercollegiate activities.

Maximum programs. New freshmen students in regular status are recommended to carry a study-list load of not more than $15\frac{1}{2}$ units during the first semester of their freshman year. In special circumstances, the advisers of students may allow new freshmen to carry a $16\frac{1}{2}$ -unit load. After the first semester, regular students are allowed to carry a maximum load of $17\frac{1}{2}$ units. Regular students who have made a B (2.00) average for each of the previous two semesters may carry a maximum load of $18\frac{1}{2}$ units without petition.

Students who are classified as provisional, probational, and special are allowed to carry a maximum load of $13\frac{1}{2}$ units. The recommended study-list load for students who are physically handicapped or are part-time workers is $13\frac{1}{2}$ units.

Permission to carry a program of more than the maximum allowed for the student's official classification must be obtained by petition to the Committee on Admissions. The petition, on a form supplied by the Registrar, must be signed by the chairman of the department and by either the Dean of Men or the Dean of Women and returned to the Registrar, who later reports to the student the decision of the Committee on Admissions. Approval of excess units will be granted only to students with a scholarship average of 1.5 for the previous semester. Petitions of this type *must* be filed on or before the Friday of the *third* week in the semester.

Program changes. Changes may be made in programs after Registration Week only by petitions that are approved by the Admissions Committee.

CHANGE OF MAJOR

Should a student decide to change his major field of study, he should consult the Dean of the Lower Division before seeing either the chairman of the department he desires to leave, or the chairman of the department he desires to enter.

The dean will confer with the chairmen of the departments concerned and, upon their agreement in regard to the desirability of the transfer, approve the change. The Committee on Admissions will then reëvaluate the student's credits and assign his proper standing in the new department.

No student is permitted to transfer from a major in one department to one in another after the opening of the last semester of his senior year.

CREDIT BY EXAMINATION

Provision is made whereby a student in residence may, under certain conditions, take examinations for credit toward a degree either (a) in courses offered in the College, without formal enrollment in them, or (b) in subjects appropriate to the student's curriculum, but not offered as courses by the College. The results of all such examinations, with grades and grade points, are entered upon the student's record in the same manner as for regular courses of instruction.

The privilege of taking an examination for credit toward a degree will ordinarily be granted only to students who are in good standing and have at least a B (2.00) average for all courses taken in the department in which an examination is desired.

Arrangements for credit by examination must be made in advance with the chairman of the student's department, and will be subject to approval by the Committee on Courses of Instruction. The application form for examination may be obtained from the Registrar.

FINAL EXAMINATIONS

Final examinations are required in most courses. All examinations will, so far as practicable, be conducted in writing, and a maximum time will be assigned beforehand for each examination, which no student will be allowed to exceed. The time for examination sessions will not exceed two hours.

No final examination may be given at any other than the scheduled time, except by formal approval of the Class Schedule Committee.

If a final examination is one of the regular requirements in a course, there can be no individual exemption from the examination except with the approval of the Class Schedule Committee.

Comprehensive Examinations:

Any department may examine a student, at the end of the semester immediately preceding his graduation, in the major subject in which the department has given instruction; and a student so examined may, at the discretion of the department, be excused from all final examinations in courses in the department of the major subject in which he has been enrolled during the semester. Credit value may be assigned to this general examination in the major subject.

Reëxaminations:

Reëxaminations are permitted only for the purpose of raising grade E (incomplete) to a passing grade. Grade E is not given in Summer Sessions.

DISCIPLINE

When a student enters the College it is taken for granted by the College authorities that he has an earnest purpose and that his conduct will bear out this presumption. If, however, he should be guilty of unbecoming behavior or should neglect his academic duties, the College authorities will take such action as, in their opinion, the particular offense requires. Students who fail to make proper use of the opportunities freely given to them by the College must expect to have their privileges curtailed or withdrawn.

Degrees of discipline. There are five degrees of discipline: warning, censure, suspension, dismissal, and expulsion. Censure indicates that the student is in danger of exclusion from the College. Suspension is exclusion from the College for a definite period. Dismissal is exclusion for an indefinite period, with the presumption that the student's connection with the College will be ended by it.

Expulsion is the most severe academic penalty, and is final exclusion of the student from the College.

STUDENT RESPONSIBILITY

Each student is responsible for compliance with the regulations printed in this catalogue, with official notices published in the College paper, with the notices posted on official bulletin boards, and with all regulations of the associated student body.

It is the duty of the student to inform the Dean of Women or the Dean of Men of changes of address.

No student will be permitted to enter upon the study of any subject if, in the opinion of the instructor, he lacks the necessary preparation to insure competent work in the subject.

Every student is required to attend his class exercises and to satisfy the instructor in each of his courses of study, in such ways as the instructor may determine that he is performing the work of the courses in a systematic manner.

Students may not expect to receive grades, transcripts of records, or diplomas until all college obligations have been met. Neither may they register at the beginning of any semester until past obligations have been cleared or officially extended by the provost or one of the deans.

Failure to meet appointments with administration or faculty members, whether made through notices in mail boxes, in the College paper, or on bulletin boards, will be regarded as a breach of student responsibility, and will subject the student to a fine.

AUTHORITY OF INSTRUCTORS

Any instructor, with the approval of the President, may at any time exclude from his course any student guilty of unbecoming conduct toward the instructor or any member of the class, or any student who, in his judgment, has neglected the work of the course. A student thus excluded will be recorded as having failed in the course of study from which he is excluded, unless the faculty otherwise determines.

Student Mail Not Delivered at the College

No student mail will be received at the College. All students should have their mail sent to general delivery until such time as they have acquired a permanent address in Santa Barbara. Thereafter, all mail must be sent to that address.

For communication within the College, postboxes are provided in the quadrangle. It is the responsibility of the student to visit his postbox each day to get notices from faculty or administrative officers.

MISCELLANEOUS INFORMATION

Expenses—Student Body—Living Accommodations—Health Service—
Employment—Placement

EXPENSES OF STUDENTS

THE QUESTION of expense while attending the College is of importance to every student. Certain expenses are common to all students. Other expenditures are optional and vary considerably according to the difference in interests. It is possible to live simply, and to participate moderately in the life of the student community, on a modest budget. The best help the College authorities can offer the student in planning his budget is to inform him of certain definite expense items, and to acquaint him with others for which he will in all probability have to provide. It is advised that all students be able to meet the expenses of their first semester in the College without need for employment.

A table of minimum, moderate, and liberal budgets for one college semester is given on page 42.

FEES

Application fee. An applicant who wishes to enter the College must fulfill the general requirements for admission. Application blanks may be obtained from the Registrar, University of California, Santa Barbara College, Santa Barbara, California. Every applicant for admission is required to pay a fee of \$5.00 when the first application is filed. Remittance by bank draft or money order should be made payable to The Regents of the University of California.

Incidental fee. The incidental fee for all students is \$42.80 a semester. This fee, which must be paid at time of registration, covers expenses of students for library books, for registration and graduation, for athletic and gymnasium facilities and equipment, for lockers and washrooms, and for such consultation, medical advice, and care as can be furnished by the Student Health Service. It also includes the rights and privileges of membership in the Associated Students, valued at \$7.80; see page 40. No part of this fee is remitted to those students who may not desire to make use of any or all of these privileges. If a student withdraws from the College within the first four weeks from the date of his registration, a part of the incidental fee will be refunded.

Tuition fee. Santa Barbara College charges a tuition fee to every student who has not been a legal resident of the State of California for a period of one year immediately preceding the opening day of the semester during which he proposes to enroll. Such a student is classified as a nonresident. A student entering Santa Barbara College for the first time should read carefully the rules governing determination of residence, as quoted below, so that he may be prepared, in the event of classification as a nonresident, to pay the required tuition fee. This fee must be paid at the time of registration. *The attention of prospective students, who have not attained the age of 22 years and whose parents do not live in the State of California, is directed to the fact that pres-*

ence in the State of California for a period of more than one year immediately preceding the opening day of the semester during which it is proposed to attend the College, does not, of itself, entitle the student to classification as a resident. An alien who has not made, prior to the opening day of the semester during which he proposes to attend the College, a valid declaration of intention to become a citizen of the United States, is classified as a nonresident.

Tuition in the College is free to students who have been residents of the State of California for a period of one year immediately preceding the opening day of the semester during which they propose to attend the College. Students who are classified as nonresidents are required to pay a tuition fee of \$150 each semester. This fee is in addition to the incidental fee.

If the student is in doubt about his residence status, he may communicate with the Attorney for the Regents in Residence Matters. The Attorney may be consulted or communications may be addressed to him at room 910, Crocker Building, San Francisco 4, California.

The eligibility of a student to register as a resident student may be determined only by the Attorney for the Regents in Residence Matters. Every entering student, and every student returning to Santa Barbara College after an absence is required to make a "Statement as to Residence" on the day of registration upon a form which will be provided for that purpose, and his status with respect to residence will be determined by the Attorney soon after registration. Old students are advised that application for reclassification as a resident student should be filed within ten days after regular registration; by late registrants, within one week after registration. Application for a change of classification with respect to some preceding semester will not be received under any circumstances.

The Associated Students. The incidental fee, paid at the time of registration, includes membership in the Associated Students of Santa Barbara College. This organization elects regular officers and the nonappointed representatives in a student council. A membership card entitles the holder to the weekly newspaper *El Gaucho*, participation in extracurricular social activities, participation in Associated Women Students, Associated Men Students, and Women's Athletic Association activities, admission to and participation in athletic events, Artist Series programs including music, drama, and dance, debates, forensics, use of the College cabin, a reduced rate for the College annual, *La Cumbre*. Matters of finance are handled by a graduate manager of the Associated Students and a finance committee, subject to approval by the student council and the Provost.

MISCELLANEOUS FEES

For entering students only. Payable at the time of registration:

Subject A Examination (regularly scheduled, see Calendar, pages 6-7) . .	\$.50
Late Subject A Examination, an additional fee of	1.00

Psychological (College Aptitude) Test (regularly scheduled, see Calendar, pages 6-7)	\$.50
Late Psychological Test, an additional fee of.....	1.00

Prorated fees for nonresidents. The nonresident tuition fee (see page 39) for 12 or more units is \$150 a semester. For less than 12 units, the nonresident fee is prorated at \$10 per unit or fraction thereof; minimum nonresident tuition fee is \$20.

Candidates for teaching credentials. All candidates for a teaching credential must pass a proficiency test, see page 72. For the first test no charge is made; for the second proficiency test, 50 cents; for the third and succeeding tests, \$1 each.

Course in Subject A. For those students who are required to register in the English Subject A course, there is a fee of \$15.00.

Other fees:

Conditional ("incomplete") examinations	\$ 1.00
Failure to meet appointments with administrative officers or members of the Faculty	1.00
Failure to turn in registration book by required date.....	1.00
Failure to clear lockers and return equipment or clothing at required time (for each 24 hours until full purchase price of article is reached)	1.00
Health certificate for prospective teachers.....	2.00
Late registration	2.00
Returned check collection	1.00
Library fees: a schedule of library fines may be found in the College library	
Examinations for emergency limited credentials in music.....	15.00
Registration with Placement Office.....	5.00
Fees for careless breakage, lost books, lost keys and locks, etc., determined by cost of repair or replacement.	

REFUNDS

For students who leave before the middle of the semester, part of the fees enumerated above may be refunded. No claim for remission of fees will be considered unless such claim be presented during the fiscal year to which the claim is applicable. Receipts are issued for all payments and these receipts should be carefully preserved. No student will be entitled to a refund until he surrenders his original receipt to the Cashier's Office. A schedule of refunds and other information concerning student fees and deposits may be obtained from the Business Office, University of California, Santa Barbara College.

LIVING EXPENSES

The range of the cost of the various types of housing is as follows:

Board and Room	\$50.00 to \$80.00 per month
Coöperative Houses.....	\$45.00 to \$60.00 per month
Private Homes:	
Room	\$12.50 to \$25.00 per month
Board	\$35.00 to \$50.00 per month
By working at 75 cents to one dollar an hour, expenses for room and board may be reduced to	\$00.00 to \$35.00 per month
Apartments accommodating 2 to 4 (rent)	\$35.00 up per month

Other expenses. Books and stationery cost an average of from \$25.00 to \$40.00 a semester. Women students taking physical education are required to buy shoes and gymnasium clothes which cost about \$5.00.

PRINCIPAL ITEMS OF STUDENT EXPENSE ESTIMATED FOR EITHER A FALL OR A SPRING SEMESTER

Expense Item	Minimum		Moderate		Liberal	
	Men	Women	Men	Women	Men	Women
Incidental fee.....	\$ 42.80	\$ 42.80	\$ 42.80	\$ 42.80	\$ 42.80	\$ 42.80
Books and supplies...	20.00	25.00	30.00	30.00	40.00	40.00
Room and board (in- cluding lunch in Col- lege cafeteria).....	250.00	250.00	325.00	325.00	400.00	400.00
Miscellaneous (recrea- tion, club dues, laun- dry, etc.).....	90.00	100.00	130.00	200.00	180.00	240.00
Total.....	\$402.80	\$417.80	\$527.80	\$597.80	\$662.80	\$722.80

NOTE.—It is impossible to include in the above figures such variable items as clothes or transportation to and from home, or fees other than the incidental fee. Students classified as nonresidents of the State must also add to their estimated budgets the tuition fee of \$150 per semester.

LIVING ACCOMMODATIONS

The College has no dormitories for students and is dependent for housing almost entirely upon privately owned homes in the city. The majority of out-of-town students live in privately owned homes near the campus or near adequate transportation to the College. They live in boarding houses (accommodating from one to twenty students) ; one or two coöperative houses, in which students

do their own cooking and housekeeping; in rooms in private homes, with or without kitchen privileges; in sorority or fraternity houses; in private homes where they work approximately fifteen hours a week in exchange for room and board. Advice and information about these types of accommodations may be obtained from the Office of Student Housing.

All housing must be approved by the College authorities. Registration of each student is not complete until his housing is approved. Living arrangements are made directly with the householder after the student has been formally accepted in the College. Accommodations listed by the College can be occupied only by students enrolled in the College.

For whatever type of accommodation the student engages, he is urged to have a clear understanding in writing at the time of making his reservation regarding terms of payment, charges for the vacation periods, laundry privileges, the use of baths, social regulations, etc. In most houses, a deposit is required at the time the student engages his lodging.

As accommodations are not uniform, prospective students are advised to make their arrangements in person. It is best to write in advance of a trip to Santa Barbara in order to insure maximum assistance from the Housing Office. When an accommodation is engaged it is expected that the student will remain the entire semester. Any exceptions to this must be approved by the Dean of Women or the Dean of Men.

Applications for housing should be made with the Housing Office at the earliest possible date.

RULES GOVERNING RESIDENCE

The term nonresident student is construed to mean any person who has not been a bona fide resident of the State of California for more than one year immediately preceding the opening day of a semester during which he proposes to attend the College. (See pages 39 and 40.)

The residence of each student is determined in accordance with the rules for determining residence prescribed by the provisions of Section 244 of the Political Code of California, and Section 20005 of the Educational Code of California, provided, however:

1. That every alien student who has not made a valid declaration of intention to become a citizen of the United States, as provided by the laws thereof, prior to the opening day of the semester during which he proposes to attend the College, is deemed to be a nonresident student.

2. That no person is deemed to have made a valid declaration of intention to become a citizen of the United States whose declaration of intention at the time when it is presented in support of an application for classification as a resident student in the College has lost its force or effectiveness, or who cannot, under said declaration, without renewing the same or making a new declaration, pursue his declared intention of becoming a citizen of the United States.

Every person who has been, or shall hereafter be, classified as a nonresi-

dent student shall be considered to retain that status until such time as he shall have made application in the form prescribed by the Registrar of the College for reclassification, and shall have been reclassified as a resident student.

Every person who has been classified as a resident student shall, nevertheless, be subject to reclassification as a nonresident student and shall be reclassified as a nonresident student whenever there shall be found to exist circumstances which, if they had existed at the time of his classification as a resident student, would have caused him to be classified as a nonresident student. If any student who has been classified as a resident student should be determined to have been erroneously so classified, he shall be reclassified as a nonresident student, and if the cause of his incorrect classification shall be found to be due to any concealment of facts or untruthful statement made by him at or before the time of his original classification, he shall be required to pay all tuition fees which would have been charged to him except for such erroneous classification, and shall be subject also to such discipline as the President of the University may approve.

SCHOLARSHIPS

The College has a number of scholarships, available to entering students as well as to those already in attendance. Rating candidates for scholarships is based on three qualifications—excellence in high school or college scholarship, outstanding leadership in extracurricular student activity, and exemplary personal character. Applications for these scholarships should be forwarded to the Secretary of the Committee on Honors and Scholarships with three letters of recommendation amplifying the qualifications designated above.

Selection of beneficiaries for the following scholarships is made by a committee composed of members of the faculty of Santa Barbara College, after deliberate consideration of the candidate's record.

1. Associated Students of Santa Barbara College (Participant in High School Symphony Concert)
2. C. D. Woodhouse Scholarship (Upperclassmen)
3. Elizabeth N. Jones Scholarship
4. Santa Barbara College Faculty Scholarships
5. Santa Barbara Woman's Club Scholarship (Graduate of Santa Barbara High School)
6. Mary Pillot Scholarship Fund (Graduate of San Jose High School)
7. Werner R. Scott Fund.

GRANTS IN AID

Two grants in aid of \$500 each, designated as "Support for Speech Correction," have been available for the academic year 1948-1949. These grants are for the study of, and work with, cerebral palsied children. One grant is donated by "The Women's Auxiliary of The Santa Barbara County Medical Society," and the other by Thomas D. Sears (Faith Johnson Sears Fund). It is anticipated that similar funds will be available in the future.

LOANS

Various organizations and individuals have contributed toward the building up of several student loan funds. The gifts for this purpose are administered by the University in accordance with the conditions laid down by the donors and the administrative regulations of the Board of Regents. These funds are sufficient to provide small loans for short periods of time and usually without interest. Students who are facing emergencies are eligible and should file their applications with the expectation of waiting ten days for the processing of the loans. For further information, apply to the Dean of Men or the Dean of Women. Loans are available as follows:

Ednah Rich Morse Loan Fund
Santa Barbara Student Loan Fund
Albert H. Stone Education Fund
Henry Strong Educational Foundation
Senior Loan Fund
Willis Edwin Leonard Memorial Loan Fund.

STUDENT HEALTH SERVICE

The purpose of the Student Health Service is to conserve the time of students for their classwork and studies, by preventing and treating acute illnesses.

Each registered student at Santa Barbara College may, at need, have such consultations and medical care on the campus as the Infirmary is staffed and equipped to provide, from the time of payment of his registration fee to the last day of the current semester. Surgical treatment is also included in the service when, in the opinion of the Director of the Student Health Service, this service is necessary and within the limitations herein outlined. During the semester hospital care for a period up to thirty days may be given in the event of serious illness, on recommendation of the Director of Student Health Service.

If illnesses are of a nature requiring long continued care, so that the student may not be returned to classes during the current semester, or if at the end of the semester the patient is still ill, he will be returned to his home or community as soon as the Director of Student Health Service considers it safe. Additional charges will be made for unusual appliances or remedies not ordinarily available or for hospitalization in excess of thirty days.

The Health Service does not take responsibility for certain chronic physical defects or illnesses at the time of entrance to the College (for example, hernias, chronic bone and joint diseases or deformities, chronic gastrointestinal disorders, fibroids of the uterus, chronically infected tonsils, tuberculosis, syphilis, malignant diseases, allergic and endocrine disorders, etc.).

A physical examination is required of all students entering the College for the first time and of all students returning after an absence of one month or longer. Also, physical examinations will be given sophomores who are candidates for teaching credentials.

STUDENT EMPLOYMENT

The College faculty expects a student to devote the major part of his time to his studies. Although many students plan to earn part or all of their expenses, it is strongly advised that students attempt no outside employment until they have made satisfactory adjustment to the demands of their academic work and of college life. Health and a scholastic standing of at least one semester should be assured before a full study program, plus employment, is attempted. Many students are able to carry an average program and from ten to twenty hours of outside work without jeopardizing scholarship, health, or participation in college activities.

If a student is largely self-supporting or not in good health he must consider at the outset that more than the minimal number of semesters may be necessary to obtain a degree.

A student should not arrange for employment until his academic program is planned for the semester. If his program does not permit regular working hours throughout the semester, the student may take employment of shorter duration or irregular hours which may be fitted into his program. There are many part-time jobs available for women and men. However, it is not always possible at the time of registration to place each student desiring employment.

Jobs of many different types are available to men students. Women students who have experience in recreational work, library work, stenography, general office work, waiting on tables, or housekeeping generally are employable. Women students may be placed in private homes to work fifteen hours a week in exchange for room and board. This work is usually care of children and light housework. Seventy-five cents an hour is paid for any additional hours over the fifteen. It is not recommended that underclassmen plan to work more than twenty hours a week.

There are many requests for occasional help in work such as care of children, gardening, driving, moving, clerking on Saturday, serving, sewing, light housework, special typing, or tutoring. Standing lists of requests for occasional help are kept in the offices of the Dean of Men and Dean of Women.

All employment must be registered with the Dean of Men or the Dean of Women. Students should indicate their employment desires to the appropriate dean's office before seeking employment.

OFFICE OF TEACHER PLACEMENT

Santa Barbara College maintains an Office of Teacher Placement for the mutual service of its credential graduates and school officials. No charge for service is made to students, other than a fee of \$5 payable to the Business Office of the University of California, Santa Barbara College, at the time of registration in the Office of Teacher Placement. This fee covers certain incidental expenses in connection with recommendations for positions.

A folder is prepared for each student, and this folder is permanently main-

tained in the Office of Teacher Placement, either in the active or inactive file, depending upon the status of the student. The same interest is maintained in former students as in those who are just completing the work of the College, and the services of the Office of Teacher Placement are available to former students upon their request.

There is no guarantee that positions will be obtained for students, but every reasonable effort is made in their behalf. All candidates for positions are expected to reimburse the Office of Teacher Placement for telephone messages and telegrams found necessary by the Director of Placement in transactions in behalf of the student. Accumulative records are maintained for each registrant. Transcripts of scholastic records may be obtained from the office of the Registrar of the College. Transfer of application folders is made between the College and the University of California, Berkeley and/or Los Angeles.

THE COLLEGE BOOKSTORE

The College Bookstore is maintained on the Riviera campus and operated by the Regents of the University of California through the supervision of the business manager. This store carries textbooks, stationery, and supplies of all kinds essential in college work. Operational policies of the store assist in making it possible for students to purchase their supplies at minimum cost.

STUDENT ACTIVITIES

Student organizations. The major student organizations include the Associated Student Body, the Associated Men Students, the Associated Women Students, the Women's Athletic Association, and departmental and class organizations. There are seven local sororities and one national sorority which belongs to the Association of Educational Sororities, Delta Sigma Epsilon. There are four local fraternities and four national fraternities; these function through the Interfraternity Council. There are five subchapters of Phrateres, women's national social organization. Service organizations include Ad Club, Alpha Phi Omega, Spurs, Key and Scroll, Cal Club, Crown and Scepter, and Blue Key. The national honorary or professional fraternities which are active on this campus are: Alpha Phi Gamma (journalism), Alpha Mu Gamma (foreign language), Beta Beta Beta (biological science), Delta Phi Delta (art), Delta Phi Upsilon (early childhood education), Kappa Delta Pi (education), Kappa Omicron Phi (home economics), Phi Beta (women in music), Phi Delta Pi (women in physical education), Pi Sigma Chi (industrial education), and Theta Alpha Phi (dramatics).

Activities. Publications of the Associated Students include *El Gaucho*, semi-weekly newspaper; *La Cumbre*, the yearbook; a handbook; a directory; and a campus magazine.

The Associated Students sponsor debating, speech contests, dramatics, a dance concert, musical productions, an Artists' Series program, and a special program of dances and picnics.

REQUIREMENTS FOR DEGREES AND CREDENTIALS

GENERAL REQUIREMENTS

Unit and grade-point requirements. A total of 120 semester units, with at least 120 honor points, is required for graduation with a bachelor's degree. In order to graduate, the candidate's record must show as many grade points as there are units in the total credit value of all courses undertaken. A student on probation may not apply for graduation. The degree of Bachelor of Arts is offered in 1948-1949. Half of the 120 units required for the bachelor's degree will normally be completed in the lower division and half in the upper division. Not less than 40 units of the total requirements must be selected from upper division courses.

A maximum of 64 semester units may be accepted by transfer from junior colleges.

Three-year program. Normally, the undergraduate program for the bachelor's degree at Santa Barbara College extends over a period of four years. However, by a rearrangement of courses, the requirement of 120 units for graduation may be completed in three years—six semesters of 17 units each and three summer sessions of 6 units each.

Extension credit toward graduation. A maximum of 30 semester units in courses taken in University Extension may be counted toward graduation. However, only courses fulfilling the requirements for the major or minor, or which may be approved by the Curriculum Coördinator may be counted in the total of 120 units. Teachers in service are not allowed, by regulation of the State Board of Education, to take more than 10 units of work during the school year.

Residence requirement. (Effective July 1, 1948.) Every candidate for a bachelor's degree is required to have been enrolled in the college during his two final semesters of residence; the last 24 units must be done while so enrolled. It is permissible to offer a total of twelve weeks of summer sessions as equivalent to one semester, but the student must complete at least one regular semester of his senior year in residence instruction. Credit earned by special examinations taken at Santa Barbara College will not count for residence credit.

LOWER DIVISION

General educational preparation. The lower division offers the first two years' study and training in practical arts and sciences and in liberal arts and sciences. This includes approximately 60 units of the collegiate program. The emphasis in all departments is upon general education rather than specialization.

Lower division work, because of its liberal and foundational character, ought, wherever possible, to be completed before the student undertakes the more specialized work of a department. This is advisable, not only to safeguard

against the narrowness and provinciality of overspecialization, but also to give the student the breadth of intellectual experience necessary for effective participation in society. With these objectives in mind the faculty has set up a core curriculum, a minimum number of units in designated fields which all students must take. These requirements should be satisfied as early as possible. It would be well if some of these requirements were included in each semester's program in the lower division, where they are generally met.

Social science	9 units
Natural science	9 units
English	9 units
Applied arts	9 units
Psychology	3 units
Philosophy	3 units
Physical education	2 units

Introduction to major fields of study. For students who enroll in the professional curricula, a minimum amount, approximately 16 units, of lower division courses are allocated to the major field of study. These courses serve as an introduction to, as well as preparation for, upper division specialization.

Curricula in liberal arts do not lead to a teaching credential. However, students pursuing a course of study in the liberal arts may, by fulfilling the requirements of a teaching major, qualify for a certificate to teach.

If a lower division student wishes to change his departmental affiliation or course of study, he must first file a written notice to this effect with the Dean of the Lower Division; whereupon an evaluation of his previous record will be made in terms of the department chosen. This statement applies also to lower division transfers from other colleges or junior colleges.

UPPER DIVISION

The *upper division of the College* embraces the last two years of the four-year curricula. For admission to this division, the records of all students are re-evaluated. The nature of the evaluation is determined by the student's desired curriculum classification.

Choice of major field of study. It is in the upper division that the definite work in the major is begun. Those students who, up to the time of their entering the upper division have not yet determined upon a major field of study, must now do so.

To be admitted to the upper division, the student must have completed the lower division requirements and must have satisfied such other requirements as the department of his choice has established.

The chairman of the department in which the student registers becomes the student's chief adviser. The student should consult this adviser for assistance in all program and other curricular and professional problems.

It is highly desirable that the student choose his major field of study with

great care. Personal preference, individual qualifications, and future ambitions should be carefully weighed. It should be kept in mind that change of major after entering the upper division is likely to prove costly in both units and time.

Unit requirements in upper division. Sixty semester units must be completed in the upper division; not less than 40 units of this total requirement must be elected from upper division courses.

AREAS OF CONCENTRATION AND DISTRIBUTION

Area of concentration. The area of concentration includes a departmental major, limited to 40 units (except where the total requirement for a credential to teach exceeds this number) plus 6 units in a related field, and the department's requirements in foreign languages and mathematics. The total number of units in the area of concentration ordinarily will be somewhat less than half the number of units required for graduation. The chairmen of the respective departments will administer this work.

The field of professional education for teachers has its own majors, with requirements limited to 40 units.

Areas of distribution. There are seven subject fields in which students must take their work. These fields are as follows: applied arts (including majors in art, arcrafts, industrial arts, home economics, music, and physical education), English, philosophy, psychology, natural sciences (including majors in biological science, botany, chemistry, mathematics, physical science, and zoölogy), social sciences (including majors in economics, history, political science, social science, and sociology), and speech.

The following requirements must be completed in the six areas of distribution: English, 9 units; natural sciences, 9 units; psychology, 3 units; philosophy, 3 units; social sciences, 9 units; and applied arts, 9 units.

For the majors in the Department of Education, the areas of distribution are determined mainly by State requirements for certification.

ELECTIVES

When requirements in areas of distribution and concentration have been fulfilled, the remaining work may be distributed among subject fields. There will be enough free elective units for the student, at his discretion, to expand the departmental major by not more than 9 units, to increase the number of units in the related field, to establish a minor, or to satisfy the requirements of a teaching credential if the student's major field prepares for certification.

CURRICULUM COÖRDINATOR

The function of the Curriculum Coördinator is to administer the requirements in the areas of distribution and to determine whether or not these have been met by all students. Beyond this, any one of the areas may be expanded at the student's option, provided sufficient units are available in his program. The Coördinator will furnish information concerning the best sequential arrange-

ment of work, whether only the minimum requirements are to be met or a larger program in the areas of distribution is desired.

AMERICAN HISTORY AND INSTITUTIONS

A knowledge of the provisions and principles of the United States Constitution and of American history, including American institutions and ideals, is required of all candidates for the bachelor's degree who will complete the requirements for their graduation in June, 1947, or later. The State law requirement is called the "Requirement of American History and Institutions" and may be satisfied by any one of the following methods:

1. By completing one of the following combinations:
 - a. History 17A-17B.
 - b. History 17A or 17B and History 173, 174, or 175.
 - c. Political Science 50 and Political Science 157, 163, or 181.
 - d. Political Science 50 and History 17A or 17B.These courses are not open to freshmen.
2. By presenting credit for acceptable courses completed at another collegiate institution.*
3. By examination:
 - a. By passing examinations without credit in American history, and in American institutions, under direction of Department of the Social Sciences.
 - b. By passing an examination in American institutions and completing one course in group *a* or group *b* above, or by passing an examination in American history and completing one course in group *c* above.
4. Any of the courses listed above, when offered in University Extension and in Summer Sessions, may be used to fulfill the requirement in American History and Institutions.

MILITARY SCIENCE

All undergraduate male students must, upon admission to the College, report immediately to the proper officers for enrollment in military science, in accordance with instructions in the CIRCULAR FOR NEW UNDERGRADUATES or the announcements which may be posted on the ROTC bulletin board. Students must list the prescribed courses in military science on their study cards with other College courses.

A petition for excuse from, or deferment of, military science, must be filed on registration day. Exception will be made where illness or physical disability occurs after that date. Further information about the requirement in military science, including statements of the grounds upon which students may be excused from this work, may be obtained from the ROTC office. A student

* Candidates for general teaching credentials must have met this requirement at an approved California teacher-training institution.

who petitions to be excused from military science should nevertheless present himself to the proper instructors for enrollment while action on his petition is pending.

If a student subject to this requirement lists the prescribed course on his study card, and thereafter without authority fails to appear for work in the course, his neglect will be reported to the Registrar, who, with the approval of the Provost, will notify the student that he is dismissed from the College. The Registrar will then inform the dean or other officer in charge of the student's program of his dismissal. Reinstatement will be made only upon approval of the Provost of the College with the concurrence of the Professor of Military Science and Tactics.

PHYSICAL EDUCATION REQUIREMENT

All students must complete 2 units in physical education, preferably in the lower division. For students over 24 years of age at the time of registration, this requirement is waived, although courses in recreational activities are recommended.

MINORS

In order to complete requirements for graduation in most of the majors, a minor is not required.

Students whose major is in junior high school education must complete two minors in subjects taught in high schools to satisfy the requirement for the State credential. For those departments in which minors are required or recommended, see the departmental descriptions. Students expecting to enter a graduate school for completion of the general secondary credential or the master's degree, should plan to complete at least one minor.

Units required for a minor. Eighteen units, of which 6 must be upper division, are, in general, required to complete a minor in any department. The student should consult the chairman of his department to insure meeting any requirements for a minor in that department.

Minors available. The following minors are offered at Santa Barbara College: applied horticulture, art, arcrafts, botany, chemistry, economics, education, English, French, graphic arts, health education, history, home economics, industrial education, mathematics, music (vocal, instrumental, theory, public school), physical education, physical science, physiology, political science, psychology, Spanish, sociology, speech, and zoölogy.

GROUP MAJOR

Students who do not wish to follow a specialized major curriculum may elect a group major which permits a somewhat wider selection of offerings of a liberal arts type. This curriculum leads to the degree of Bachelor of Arts, and requires 120 units for graduation, approximately half in lower division and half in the upper division.

Lower division requirements. To satisfy the requirements in this division, the

student must complete at least 9 units each in English of which 3 may be in speech, natural science (at least one laboratory course), social science, and applied arts; 3 units each in psychology and philosophy, and 2 units in physical education. The Requirement of American History and Institutions may be met by fulfilling conditions set forth on page 51. To complete the 60 units in the lower division, other work should be chosen according to the pupil's interests and needs and in line with prerequisites for the work to be done in the upper division.

Upper division requirements. In the upper division the student must complete at least 36 units of required work comprising not less than 9 units with an average grade of C or better in each of four subjects or combination of subjects as follows:

Group A. Nine units each in at least three of the following subjects or combination of subjects: 1. English-Speech, 2. Foreign Language, 3. Physical Science, 4. Biological Science, 5. Mathematics (or any combination of 3, 4, and 5), 6. History-Sociology, 7. Economics-Political Science (or any combination of 6 and 7), 8. Psychology. All work in the upper division group major may be taken in the subjects listed in Group A or 9 units of the required 36 units may be elected from Group B.

Group B. Nine units in not more than one subject or combination of subjects: 1. Art-Music, 2. Education-Philosophy-Psychology, 3. Home Economics or Industrial Education, 4. Physical and Health Education.

In addition to the requirements listed above, enough elective work must be taken to complete the 120 units required for graduation.

The student electing to graduate with a group major will be advised by the Curriculum Coördinator and must have the program approved by him.

STUDENT TEACHING

The public schools of the city of Santa Barbara and the surrounding area afford the laboratory for student teaching. Both demonstration of modern practices and supervision of student teachers are carried out by selected teachers and principals of the local schools, and under the direction of the Department of Education of Santa Barbara College. Student teachers are placed in all grades from the kindergarten through the junior high school and in those departments of the senior high school for which the College prepares prospective teachers for the special secondary credential. For further information, see page 23 and the descriptions under the respective departments.

Requirements

Grades. In order to register for student teaching in any department, the student must have maintained a scholarship average of grade C or higher in *all courses undertaken*.

At the conclusion of any semester, should the student's average fall below

grade C, he may not reregister for student teaching until the C average has been established.

No student may be graduated, with teaching credentials, without a C average in student teaching. When the scholarship average in student teaching falls below grade C, additional units beyond the 120 total units required for graduation will be imposed until the average grade in student teaching reaches the C standard. Any grade below a C in directed teaching is not considered of "passing quality."

Examinations

Proficiency test. Before commencing their student teaching in any department, students must pass a proficiency test in the statutory subjects (see page 72). This requirement must be met by all students desiring a recommendation for a teaching credential from this College (including graduates from other colleges); except teachers who hold a regular (not emergency) California credential. This test should be taken not later than the first semester of the junior year or, preferably, the last half of the sophomore year. In the case of transfers, it should be taken no later than the semester prior to registering for directed teaching.

Speech test. All candidates for teaching credentials in any department of this College must prove their proficiency in speech by passing Speech 11 with a grade of C or higher, or by passing the Speech Proficiency Test on or before entrance into the junior year. In special cases, Speech 46 or 146 may substitute for Speech 11 in satisfying this requirement. This rule also applies to transfers from and graduates of other collegiate institutions. This test is given on Thursday afternoon from two until five and on Saturday morning from ten until twelve during the first week of each semester, and on Tuesday afternoon from two until five during the second week of each semester. Retests are not allowed. Should the student for any reason fail to comply with this requirement prior to registration for his first semester of student teaching, he must register for Speech 11 and take it concurrently that semester.

COURSES OF INSTRUCTION OFFERED IN THE DEPARTMENTS AT SANTA BARBARA COLLEGE FOR THE ACADEMIC YEAR 1948-1949

EXPLANATORY NOTE

The Semester Unit. A semester unit represents one full period of classwork per week with two hours outside preparation, or if a laboratory subject, three full periods a week, taken for the entire semester. In any laboratory course, three laboratory hours have the unit value of one lecture hour. The unit value of each course is indicated by a number in parentheses immediately following the title of the course.

Roman Numeral and Letter Designations. The Roman numerals I and/or II and/or the letters Yr. are placed after the unit value of each course to show when the course is offered: I, in the fall semester; II, in the spring semester; I, II, in both semesters; and Yr., continued through the fall and spring semesters.

Year Courses; Double Numbers. A course designated by a double number (for example, History 4A-4B) is continued through two successive semesters, ordinarily from September to June. The student should use the first number in registering for the course during its first semester, and the second number during its second semester. Generally the first half of such a course is prerequisite to the second half. A final report is made by the instructor at the end of each semester. The student may discontinue the course at the end of the first semester, with final credit for the first half of the course, except as otherwise noted.

Classification and Numbering of Courses.

Courses are classified and numbered as follows:

(1) *Lower division courses* (numbered 1-99, or indicated by letters if in subjects usually given in high school). A lower division course is one open to freshmen and to sophomores; such courses do not count as upper division work in any department.

(2) *Upper division courses* (numbered 100-199). An upper division course in any department is one which is open only to those students who have completed a lower division course, or courses, in that department; or is an elementary course in a subject of such difficulty as to require the maturity of upper division students.

Departments may offer special *honors courses* in reading and research, with credit to be determined by the instructors in charge according to the performance of the individual students, subject to such general restrictions as may be imposed by the department and the College.

University Extension courses. In the curricula leading to the bachelor's degree, credit is allowed for those courses in the University of California Extension that bear numbers prefixed by X, XB, XL, or XSB. Such courses are rated, with respect to the general and specific requirements for the bachelor's degree, on the same basis as courses taken in residence at collegiate institutions of approved standing.

ART

KURT BAER, Ph.D., Associate Professor of Art.
 DONALD BEAR, Lecturer in Art.
 ENID L. BUTLER, M.A., Instructor in Art.
 CATHERINE C. CAMPBELL, M.A., Assistant Professor of Art.
 RUTH M. DOOLITTLE, M.A., Associate Professor of Art.
 RENZO G. FENCI, M.A., Lecturer in Art.
 JACOB L. HANSEN, M.A., Assistant Professor of Art.
 ROY E. LAWHORNE, Lecturer in Art.
 ELEANOR E. MORRISSEY, M.A., Instructor in Art.
 ELIZABETH MOSLE, A.B., Instructor in Art.

The art curriculum offers the degree of Bachelor of Arts, providing preparatory courses for students contemplating advanced specialization or professional careers. It may be pursued in three directions.

- Major in Fine Arts
- Major in Art Crafts
- Major with Special Secondary Teaching Credential in Art

The art department reserves the right to retain student's work for the period of one year for exhibition purposes.

Requirements for the Major in Fine Arts: Satisfactory completion of 40 art units. The required courses are:

Lower Division, 18 units:	Units
Art 1. Color and Design	2
Art 10A. Freehand Drawing	2
Art 10B. Advanced Drawing and Composition	2
Art 11. Water-color Painting	2
Art 13. Sculpture	2
Art 15. Figure Drawing from Life	2
Art 18A-18B. Art Appreciation	2-2
Art electives	2

Upper Division, 22 units:	
Art 101. Advanced Color and Design	2
Art 115A. Oil Painting	2
Art 116A. Pictorial Composition	2
Art 118. Art of the Contemporary Period	2
Art 195. Oriental Art	2
Art electives	12

Requirements for the Major in Artcrafts: Satisfactory completion of 40 art units. The required courses are:

Lower Division, 18 units:	
Art 1. Color and Design	2
Art 2. Basketry and Reedcraft	2
Art 10A. Freehand Drawing	2

Art 10B. Advanced Drawing and Composition	2
Art 11. Water-color Painting	2
Art 18A-18B. Art Appreciation	2-2
Art 20. Bookcraft	2
Art electives.....	2

Upper Division, 22 units:

Art 101. Advanced Color and Design	2
Art 102. Weaving	2
Art 104. Jewelry	2
Art 105. Leathercraft	2
Art 107. Applied Design	2
Art 112. Carving	2
Art 123A. Ceramics	2
Art electives	8

Requirements for the Special Secondary Teaching Credential in Art: In order to satisfy the State requirements for the special secondary credential in art, the following courses in education are required: Education 57, 173, A 190A-B, A 192A-B; Speech 11. Satisfactory completion of the proficiency test by all students, and the speech test or a C grade in Speech 11 taken in this college by transfer students is required prior to the beginning of student teaching. Satisfactory completion of 40 art units. The required courses are:

Lower Division, 21 units

Art 1. Color and Design	2
Art 10A. Freehand Drawing	2
Art 10B. Advanced Drawing and Composition	2
Art 11. Water-color Painting	2
Art 12A. Lettering	1
Art 14. Poster	2
Art 15. Figure Drawing from Life	2
Art 18A-18B. Art Appreciation	2-2
Art 19. Public School Art	2
Art 20. Bookcraft	2

Upper Division, 19 units:

Art 101. Advanced Color and Design	2
Art 102. Weaving	2
Art 105. Leathercraft	2
Art 115A. Oil Painting.....	2
Art 116A. Pictorial Composition	2
Art 118. Art of the Contemporary Period	2
Art 120. Stage Design	2
Art 123. Ceramics	2
Art electives	3

Requirements for the Minor in Art: Satisfactory completion of 18 art units.

The required courses are:

Art 1. Color and Design	2
Art 10A. Freehand Drawing	2
Art 10B. Advanced Drawing and Composition	2

Art 11. Water-color Painting	2
Art 12A. Lettering	1
Art 15. Figure Drawing from Life	2
Art electives	7

Students whose major is in the Department of Education are required to have Education A 190A in addition to the above required courses allowing 7 units for art electives.

LOWER DIVISION COURSES

1. **Color and Design.** (2) I, II. The STAFF
Fundamentals of design and color with emphasis upon the relationship of principles of art to present-day living. Three two-hour laboratory periods.
2. **Basketry and Reedcraft.** (2) I, II. Miss MOSLE
Making sewed and woven baskets of raffia, reed, and native materials. Development of muscular dexterity through the manipulation of basketry medium. Two three-hour laboratory periods.
- 10A. **Freehand Drawing.** (2) I, II. The STAFF
Principles of perspective, form, dark and light value, and pencil technique. Three two-hour laboratory periods.
- 10B. **Advanced Drawing and Composition.** (2) I, II. Miss BUTLER
Prerequisite: courses 1, 10A.
Continuation of Art 10A with emphasis on composition in black and white, using various media. Three two-hour laboratory periods.
11. **Water-Color Painting.** (2) I, II. The STAFF
Prerequisite: courses 1, 10A, 10B.
Study of form through the medium of water color. Experimentation of techniques and individual interpretation of subject matter. Painting still-life composition. Two three-hour laboratory periods.
- 12A. **Lettering.** (1) I, II. Mr. LAWHORNE
Fundamental principles of lettering and layout. Practical problems in the design and composition of letters and illustration. Use of different media and their various interpretation. One three-hour laboratory period.
- 12B. **Lettering, Advanced.** (1) I, II. Mr. LAWHORNE
A study of historic styles as source material for the development of modern and original lettering and layout. Emphasis on design and composition. One three-hour laboratory period.
13. **Sculpture.** (2) I, II. Mr. FENCI
Prerequisite: courses 10A, 15.
Modeling, anatomical construction, and studio methods. Special emphasis placed on the modeling of the head and figure from plaster casts in the round and in bas-relief. Three two-hour laboratory periods.
14. **Poster.** (2) I, II. The STAFF
Prerequisite: courses 1, 12.
Poster construction, methods, and uses. Emphasis upon basic drawing and its commercial application. Three two-hour laboratory periods.

- 15. Figure Drawing from Life.** (2) I, II. The STAFF
 Prerequisite: courses 10A, 10B.
 Anatomical construction of the head and figure rendered in charcoal and chalk. Three two-hour laboratory periods.
- 16. The Understanding of Art.** (2) I, II. The STAFF
 A survey of the art expressions of the Occident and the Orient from pre-historic to modern times. This course is designed for nonmajors.
- 18A–18B. Art Appreciation.** (2–2) I, II. Mr. HANSEN
 A two-semester course for art students covering the historic and aesthetic development of painting, sculpture, and architecture.
 Course 18A begins with the prehistoric and follows the development of art to the end of Renaissance.
 Course 18B continues with the baroque and follows through the nineteenth century, completing the study with contemporary art.
- 19. Public School Art.** (2) II. The STAFF
 Prerequisite: course 1.
 Art education, consisting of the fundamental techniques used in units of teaching in art that have a definite relationship to the curriculum as a whole. Two three-hour laboratory periods.
- 20. Bookcraft.** (2) I, II. Miss MOSLE
 Problems relating to and including the sewing, binding and mending of books.

UPPER DIVISION COURSES

- 101. Advanced Color and Design.** (2) II. Mrs. MORRISSEY
 Prerequisite: course 1.
 Individual problems in creative design based upon present-day living and expressed in modern materials and processes. Three two-hour laboratory periods.
- 102. Weaving.** (2) I, II. Miss MOSLE
 Prerequisite: course 1.
 Analysis of the construction of various types of looms. Setting up a loom. Weaving with two- and four-harness, inkle and card looms. Appreciation and understanding of traditional patterns in weaving. Two three-hour laboratory periods.
- 103(H.E.). Home Planning and Decoration.** (3) I, II. The STAFF
 Designed to give a background in home planning and decoration for the layman, and to develop an appreciation of principles of art as they are related to everyday problems. Laboratory work consists of analysis and development of house plans and individual projects involving home furnishings.
- 104. Jewelry.** (2) II. Mrs. DOOLITTLE
 Prerequisite: course 1.
 Diversified jewelry design and construction. Materials, techniques, and historical background in relation to modern design. Two three-hour laboratory periods.

105. **Leathercraft.** (2) I, II. Miss MOSLE
Prerequisite: course 1.
Carved Spanish and craft tooling in original designs applied to accessories of costume; interior decoration in modern and antique styles of tooling and finishing. Two three-hour laboratory periods.
106. **Elementary Art Techniques.** (3) I, II. Mr. BAER
Actual methods, laboratory practice, and observation used to introduce the student to the essentials of arts as taught in the elementary schools. Three three-hour laboratory periods.
107. **Applied Design.** (2) I, II. Mrs. DOOLITTLE
Prerequisite: courses 1, 101.
Original designs in batik, block printing, and stencil process. Two three-hour laboratory periods.
- 108A. **Costume Design.** (2) I. Mrs. CAMPBELL
Prerequisite: courses 1, 10A, 15.
Survey course: historic costume, development of plate technique and rendering of materials, application of historic line and detail to modern dress and accessories. Three two-hour laboratory periods.
- 108B. **Stage Costume.** (2) II. Mrs. CAMPBELL
Costume design for plays, pageants, and festivals. Three two-hour laboratory periods.
110. **Art Needlework.** (1 or 2) II. Mrs. DOOLITTLE
Prerequisite: course 1.
The art of enriching textiles by applying the various stitches in original decorative patterns to clothing or articles for interior decoration. Two three-hour laboratory periods.
112. **Carving.** (1 or 2) II. Mr. HANSEN
Prerequisite: courses 1, 101.
Principles of carving as applied to individual compositions in bas-relief, alto-relievo, and in the round. Ornaments, and animal and human forms are developed in plaster, wood, or stone. Two three-hour laboratory periods.
113. **Advanced Sculpture.** (2) II. Mr. FENCI
Prerequisite: course 13.
Figure composition from life, both in relief and in the round, developed as original conceptions. Three two-hour laboratory periods.
- 114A. **Interior Decoration.** (2) I, II. Mrs. MORRISSEY
Prerequisite: courses 1, 10A.
Lecture and laboratory course consisting of a study of the historic styles in furniture and decoration. The rendering of plates applying the principles of design and color to specific problems in interior decoration with emphasis on designing for contemporary living. One lecture, five laboratory periods.
- 114B. **Interior Decorating.** (2) II. Mrs. MORRISSEY
Prerequisite: course 114A.
Advanced problems in contemporary interior design. One lecture, five laboratory periods.

- 115A. Oil Painting.** (2) I, II. The STAFF
Prerequisite: course 116A.
The technique of composition and rendering in oil paint. Two three-hour laboratory periods.
- 115B. Figure Composition—Oil Painting.** (2) I, II. The STAFF
Prerequisite: courses 116A, 115A.
Painting from life, emphasizing use of the figure in decorative compositions including large-scale studies. Student's work must indicate a basic knowledge of human anatomy and technical proficiency in the oil medium. Two three-hour laboratory periods.
- 116A. Pictorial Composition.** (2) I, II. Miss BUTLER
Prerequisite: courses 10A, 10B, 11.
Theory and analysis of compositional structure and its application to pictorial problems. Three two-hour laboratory periods.
- 116B. Advanced Pictorial Composition.** (2) I, II. Miss BUTLER
Advanced composition in water color and gouache, stressing the modern schools of painting.
- 118. Art of the Contemporary Period.** (2) I, II. Mr. BEAR
Prerequisite: course 18.
Representative developments in art from the Impressionists to present day. Trends in composition and techniques shown in illustrated lectures.
- 120. Stage Design.** (2) II. Mr. BAER
Prerequisite: courses 1, 10A.
Principles of design and color applied to the particular problems of stage lighting and setting. Practical stagecraft and stage management, construction of sets. Three two-hour laboratory periods.
- 121A. Commercial Art Photography (Basic).** (2) I, II. Mr. LAWHORNE
Principles of photography and the processing of the negative. Optics of photography. Chemistry. Negative quality and the rules to obtain it. Composition and light. Printing and quality of prints. Two three-hour laboratory periods.
- 121B. Commercial Art Photography (Advanced).** (2) I, II. Mr. LAWHORNE
Prerequisite: Chemistry 2A.
Study of the use of photography. Composition and selection of subject. Still-life photography and lighting of subject. Landscape and group photography. Uses of filters and principles of flash. Advanced printing and control of prints. Two three-hour laboratory periods.
- 122A. Commercial Art (Basic).** (2) I. Mr. LAWHORNE
Prerequisite: courses 10A, 11, 12A, 12B, 14, 15.
Study of the principles of advertising. The application of art to commercial uses. Black-and-white drawing and composition. Drawing for reproduction by different processes. Analysis of the product and its presentation from rough to finished art. One hour lecture, five laboratory periods.
- 122B. Commercial Art (Advanced).** (2) I. Mr. LAWHORNE
Stressing composition and drawing. Study of the reproducing processes and their different advantages. Drawing to fit the process. Preparing art and layout for newspaper and magazine advertising. One hour lecture, five laboratory periods.

123A. Ceramics. (2 or 3) I.

Mr. HANSEN

Prerequisite: course 1.

Composition of clays and glazes; making and decorating by hand tiles and forms from original designs; casting, pouring, and turning of pieces; practice in using the kiln for bisque and glaze firing. Two three-hour laboratory periods.

123B. Advanced Ceramics. (1 or 2) II.

Mr. HANSEN

Prerequisite: course 123A.

Intensive study of the composition and mixing of glazes for color variation; building and casting of large original problems; practice in kiln construction. Two three-hour laboratory periods.

195. History of Oriental Art. (2) I, II.

Mrs. MORRISSEY

A survey course covering the historic and aesthetic development of the art expressions of the Orient.

The following courses in education are specifically related to the Department of Art: Education A 190A, A 190B, A 192A, A 192B. For a description of these courses, see Education-Psychology.

BIOLOGICAL SCIENCES

- BARBARA D. BLANCHARD, Ph.D., Assistant Professor of Zoölogy.
DEMOREST DAVENPORT, Ph.D., Assistant Professor of Zoölogy.
MARY M. ERICKSON, Ph.D., Associate Professor of Zoölogy.
KARL A. GROSSENBACHER, Ph.D., Assistant Professor of Botany.
GARRETT J. HARDIN, Ph.D., Assistant Professor of Bacteriology.
ROSCOE C. MAIN, M.D., Instructor in Zoölogy.
CORNELIUS H. MULLER, Ph.D., Assistant Professor of Botany.
¹ ELMER R. NOBLE, Ph.D., Associate Professor of Zoölogy.
HELEN E. SWEET, Ph.D., Associate Professor of Zoölogy.
JAMES L. WALTERS, B.S., Instructor in Botany.
HARRINGTON WELLS, M.A., Associate Professor of Science Education.

Requirements for the Majors. All major students in the department are required to present for graduation, in addition to the major and general requirements, credit for 1 unit of Biology Seminar (Biology 192) and for one year of elementary German or French (German 1, 2, or French 1, 2).

Biology

Preparation for the Major.

Required courses:	Units
Botany 1A-1B. General Botany	4-4
Chemistry 1A. General Chemistry	5
Chemistry 1B. General Chemistry	5
Zoölogy 1A. General Zoölogy	4
Zoölogy 1B. Chordate Zoölogy	4
Recommended:	
Any course in organic chemistry.....at least	3
Mathematics 1A-1B. Mathematical Analysis	4-4
Physics 2A-2B. General Physics	4-4

The Major. 24 units of upper division courses in the biological sciences, of which at least 9 units must be taken in each of the two following groups:

Group 1:

Botany 108A. Taxonomy of Flowering Plants.....	3
Botany 108B. Taxonomy of Flowering Plants.....	3
Botany 140. Principles of Bio-Ecology	3
Botany 141. Ecology of Biotic Communities.....	3
Zoölogy 104. Entomology	3
Zoölogy 112. Invertebrate Zoölogy	4
Zoölogy 113. Natural History of Vertebrates	3

Group 2:

Biology 104. General Bacteriology	4
Biology 105. Preparative Bacteriology	1

¹ In residence fall semester only, 1948-1949.

	Units
Biology 107. Cytology	4
Biology 130. Genetics	3
Biology 131. Evolution	3
Biology 145. Economic Biology	3
Biology 180. Public Health	3
Biology 190. Scientific Literature	2
Botany 128. Plant Physiology	4
Zoölogy 100. Vertebrate Embryology	3
Zoölogy 106. Comparative Anatomy of Vertebrates.....	4
Zoölogy 111. General Parasitology	4

Botany

Preparation for the Major.

Required courses:

Botany 1A-1B. General Botany	4-4
Botany 6. Plant Anatomy	3
Botany 7. Introduction to Plant Physiology.....	4
Chemistry, one year, preferably Chemistry 1A-1B.....	5-5
Zoölogy 1A. General Zoölogy	4

The Major. 24 units from the following to fit the need of the student:

Biology 104. General Bacteriology	4
Biology 105. Preparative Bacteriology	1
Biology 107. Cytology	4
Biology 130. Genetics	3
Biology 131. Evolution	3
Biology 190. Scientific Literature	2
Biology 199. Special Problems in Biological Sciences	1-3
Botany 108A-108B. Taxonomy of Flowering Plants	3-3
Botany 128. Plant Physiology	4
Botany 140. Principles of Bio-Ecology	3
Botany 141. Ecology of Biotic Communities	3

Zoölogy

Preparation for the Major.

Required courses:

Zoölogy 1A. General Zoölogy	4
Zoölogy 1B. Chordate Zoölogy	4
Botany 1A. General Botany	4
One year of chemistry, preferably 1A-1B.....	5-5

The Major. 24 units of upper division work in zoölogy. For 6 of these units substitutions may be made from approved related courses in anthropology, botany, chemistry, and physics. The following courses from the Biology list may be included in the major.

Biology 104. General Bacteriology	4
Biology 105. Preparative Bacteriology	1
Biology 107. Cytology	4
Biology 130. Genetics	3
Biology 131. Evolution	3
Biology 199. Special Problems	1-3

Bacteriology**4. General Bacteriology Laboratory. (2 or 3) I.**

Mr. HARDIN

Prerequisite: course 1, completed or taken concurrently.

The fundamental techniques of elementary bacteriology, including some study of molds and yeasts, with practical experience in the techniques of the bacteriological preparator. Two or three two-hour laboratory periods, with an additional three hours a week by arrangement.

Upper division courses listed under Biology.

Biology**LOWER DIVISION COURSES****1. Educational Biology. (3) I, II.**

Mr. WELLS

A general introductory survey course, open without prerequisite to all students. Lectures, museum studies, field and laboratory work providing basic training in life science. Lectures, two hours; laboratory, three hours.

4. Microtechnique. (2 or 3) II.

Prerequisite: an introductory course in biology.

Elementary chemistry is recommended. Lecture, one hour; laboratory, three or six hours. Not open to freshmen.

***5. Marine Biology. (3) I or II.**

The study of salt water organisms, particularly those found along California beaches at low tide; methods of collection and preservation. Lectures, two hours; laboratory or field, three hours.

10. Elementary Human Physiology. (3) I, II.

Miss BLANCHARD, Miss ERICKSON

The basic concepts and principles of biology applied to man.

Structure and function of the organ systems. Not open to students who have passed Zoölogy 40A. Lectures, two hours; laboratory, three hours.

30. Native Plants and Animals. (3) II.

Miss ERICKSON

Prerequisite: one semester of biology, botany or zoölogy.

A study of plants and animals in the field. Lecture, one hour; field trips, six hours.

UPPER DIVISION COURSES**104. General Bacteriology. (4) I, II.**

Prerequisite: inorganic chemistry. (Not open to students who have had Bacteriology 1.)

Introduction to microbiology, with integrated lecture and laboratory work. Metabolism of bacteria, yeasts, and molds; in the activities of microbes, in the spoilage and preservation of food, the fermentations industries, sanitation, and agriculture. Lectures, two hours; laboratory, six hours.

* Not to be given, 1948-1949.

105. **Preparative Bacteriology.** (1) I, II. _____
 Prerequisite: Biology 104, completed or taken concurrently.
 Practical experience in the preparation of media, sterilization procedures, etc. Recommended to those planning to become nurses, laboratory technicians, or research workers. Prerequisite to work on special problems (Biology 199) in the field of bacteriology or microbiology. Laboratory, three hours.
107. **Cytology.** (4) I. Mr. WALTERS
 Prerequisite: Botany 1A-1B, or Zoölogy 1A-1B, or equivalent.
 Structure and functions of the cell, especially in relation to heredity and development. Lectures, two hours; laboratory, six hours.
130. **Genetics.** (3) I. Mr. HARDIN
 Prerequisite: an elementary course in biological science, and high school algebra. The principles and the applications of the laws of heredity.
131. **Evolution.** (3) II. Mr. HARDIN
 Prerequisite: Biology 130. Recommended: Mathematics 1A-1B, or equivalent.
 Organic evolution, with critical discussion of possible mechanisms involved.
145. **Economic Biology.** (3) I, II. Mr. WELLS
 The economically valuable plants and animals and their products. Open to all students without prerequisite.
180. **Public Health.** (3) I, II. Miss SWEET
 Prerequisite: one year of biological science.
 The principles of community well-being with emphasis on preventive methods in the control of disease; history, economics, and administration of health service.
190. **Scientific Literature.** (2) I, II. The STAFF
 Required for the majors in biological sciences.
192. **Biology Seminar.** (1) II. The STAFF (Mr. NOBLE in charge)
 Prerequisite: senior standing.
 Required for majors in the biological sciences. A critical review of research in selected fields of biology. Oral reports by students.
199. **Special Problems in the Biological Sciences.** (1-3) I, II. The STAFF
 Hours and credit by arrangement with any member of the staff. Laboratory or field.

Botany

LOWER DIVISION COURSES

- 1A-1B. **General Botany.** (4-4) Yr. The STAFF
 Fundamental facts and principles of the botanical sciences. Lectures, two hours; laboratory or field, six hours.
6. **Plant Anatomy.** (3) II. Mr. WALTERS
 Prerequisite: course 1A-1B.
 Introduction to the anatomy of higher plants with particular reference to the development and differentiation of vegetative tissues. Lectures, one hour; laboratory, six hours.

- 7. Introduction to Plant Physiology. (4) I.** Mr. GROSSENBACHER
 Prerequisite: course 1A-1B, General Chemistry.
 An introductory course on the physiology of higher plants with particular reference to water relations, photosynthesis, assimilation, plant nutrition, and hormones. Lectures, two hours; laboratory, six hours.

UPPER DIVISION COURSES

- 108A. Taxonomy of Flowering Plants. (3) I.** Mr. MULLER
 Prerequisite: course 1A-1B or consent of the instructor.
 Field and herbarium studies of flowering plants; methods of collection, preservation, and identification; the characteristics and relationships of plant families. Lectures, one hour; laboratory or field, six hours.
- 108B. Taxonomy of Flowering Plants. (3) II.** Mr. MULLER
 Prerequisite: course 108A.
 Field and herbarium studies of native flowering plants; intensive study of California flora. Lectures, one hour; laboratory or field, six hours.
- 128. Plant Physiology. (4) II.** Mr. GROSSENBACHER
 Prerequisite: course 1A-1B, General and Organic Chemistry. Quantitative analysis recommended.
 Water relations, nutrition, pigments, photosynthesis, assimilation, respiration, hormones, dormancy, and periodicity in higher plants. Lectures, two hours; laboratory, six hours.
- 140. Principles of Bio-Ecology. (3) I.** Mr. MULLER
 Prerequisite: Botany 1A-1B, or Zoölogy 1A-1B, and one other laboratory course in botany or zoölogy, or consent of instructor.
 The ecology of plant and animal individuals, species, and communities, with emphasis upon habitat analysis and responses. Lectures, two hours; laboratory or field, three hours.
- 141. Ecology of Biotic Communities. (3) II.** Mr. MULLER
 Prerequisites: Botany 1A-1B, or Zoölogy 1A-1B, and one other laboratory course in botany or zoölogy, or consent of the instructor.
 The theories of community origin, structure and function and the geographic basis of community distribution. Lectures, two hours; laboratory or field, three hours.

Zoölogy

LOWER DIVISION COURSES

- 1A. General Zoölogy. (4) I.** Mr. NOBLE
 Prerequisite: high school or college chemistry.
 Principles of animal biology with emphasis on structure, physiology, heredity, and evolution of animals. Laboratory study of the frog, and of representative invertebrate animals. Lectures, two hours; laboratory or field, six hours.
- 1B. Chordate Zoölogy. (4) II.** Mr. DAVENPORT
 Prerequisite: course 1A.
 Structure, function, and development of chordates, including basic principles of evolution. Lectures, two hours; laboratory or field, six hours.

35. **Human Anatomy.** (3) I. Mr. MAIN
The structure of the organ systems based on human material and dissection of the cat. Lectures, one hour; laboratory, six hours.
- 40A-40B. **Introductory Animal Physiology.** (3-3) Yr. Miss BLANCHARD
Prerequisite: one semester of inorganic chemistry and sophomore standing.
An introduction to vertebrate physiology with emphasis upon man. Lectures, two hours; laboratory, three hours.

UPPER DIVISION COURSES

100. **Vertebrate Embryology.** (3) I. Miss ERICKSON
Prerequisite: courses 1A and 1B.
The development of the individual from fertilization to the formation of complete organ systems, based on a study of amphioxus, frog, chick, and pig. Lectures, two hours; laboratory, three hours.
104. **Entomology.** (3) II. Mr. DAVENPORT
Prerequisite: course 1A.
An introduction to the study of insects, their classification, structure, physiology, and ecology. Lectures, one hour; laboratory or field, six hours. (Not to be given in 1949-1950)
106. **Comparative Anatomy of Vertebrates.** (4) I. Miss BLANCHARD
Prerequisite: course 1A-1B.
The evolution and ramification of vertebrate structure, with emphasis upon function. Laboratory is limited to comparative morphology, but lectures stress physiology of the chief environmental adaptations. Lectures, two hours; laboratory, six hours.
- *111. **General Parasitology.** (4) II. Mr. NOBLE
Prerequisite: course 1A-1B.
Biological aspects of parasitism, with special reference to the animal parasites of man. Methods of biological prevention and control of parasite diseases. Lectures, two hours; laboratory, six hours.
112. **Invertebrate Zoölogy.** (4) I. Mr. DAVENPORT
Prerequisite: course 1A.
An introduction to the classification, structure, habits, and ecology of invertebrate animals, with emphasis on the marine fauna of the Santa Barbara area. Lectures, two hours; laboratory or field, six hours.
113. **Natural History of Vertebrates.** (3) II. Miss ERICKSON
Prerequisite: a laboratory course in biological science.
The higher vertebrates, emphasizing life history, systematics, distribution, speciation. Field trips include identification of local species and methods of studying behavior and habitat relations. Lectures, two hours; field, three hours.

* Not to be given, 1948-1949.

EDUCATION-PSYCHOLOGY

- *WILLIAM D. ALTUS, Ph.D., Associate Professor of Psychology.
 ALMA P. BEAVER, Ph.D., Associate Professor of Psychology.
 LORETTA M. BYERS, M.A., Assistant Professor of Education.
 LAWRENCE E. CHENOWETH, A.B., Professor of Education.
 GLENN W. DURFLINGER, Ed.D., Assistant Professor of Education.
 MARION H. GROVES, A.B., Lecturer in Psychology.
 WILLIAM E. HAYES, Ed.D., Assistant Professor of Education.
 ELIZABETH H. IRISH, M.A., Lecturer in Education.
 CHARLES L. JACOBS, Ph.D., Professor of Education.
 EDITH M. LEONARD, M.A., Professor of Education.
 IRVING A. MATHER, Ph.D., Professor of Education.
 ELSIE A. POND, M.A., Associate Professor of Education.
 LESTER B. SANDS, Ed.D., Associate Professor of Education.
 DOROTHY D. VANDEMAN, M.A., Assistant Professor of Education.
 HARRINGTON WELLS, M.A., Associate Professor of Science Education.

TEACHER EDUCATION

- IRVING A. MATHER, Ph.D., Coördinator of Student Teaching.
 LORETTA M. BYERS, M.A., Adviser, Elementary Education.
 EDITH M. LEONARD, M.A., Adviser, Early Childhood Education.
 ELSIE A. POND, M.A., Adviser, Junior High Education.

DEPARTMENTAL SUPERVISORS

- MARIAN H. ANDERSON, A.B., Instructor in Physical Education.
 HELEN M. BARNETT, M.A., Associate Professor of Music.
 LORETTA M. BYERS, M.A., Assistant Professor of Education (Elementary).
 VAN A. CHRISTY, Ph.D., Professor of Music.
 RUTH M. DOOLITTLE, M.A., Associate Professor of Art.
 MAURICE E. FAULKNER, M.A., Associate Professor of Music.
 THEODORE HARDER, M.A., Associate Professor of Physical Education.
 WILLIAM E. HAYES, Ed.D., Assistant Professor of Education (Elementary).
 JEAN L. HODGKINS, M.A., Assistant Professor of Physical Education.
 ELIZABETH H. IRISH, M.A., Lecturer in Education (Elementary).
 EDITH M. LEONARD, M.A., Professor of Education (Early Childhood).
 LYNNE C. MONROE, Ed.D., Associate Professor of Industrial Arts.
 ELSIE A. POND, M.A., Associate Professor of Education (Junior High).
 DOROTHY M. SCHNELL, M.S., Assistant Professor of Home Economics.
 JOHN C. SNIDECOR, Ph.D., Associate Professor of Speech (Speech Arts).
 ROY L. SOULES, M.S., Professor of Industrial Arts.

* Absent on leave, 1948-1949.

DOROTHY D. VANDEMAN, M.A., Assistant Professor of Education (Early Childhood).

WILTON M. WILTON, M.A., Instructor in Physical Education.

Education

This department offers curricula leading to:

- A. Degree of Bachelor of Arts with a major in education and a credential to teach in the kindergarten and primary grades, the elementary grades, or the junior high school grades, or some combination of these.
- B. Major in psychology.
- C. Elementary administration credential, elementary supervision credential, and certain special supervision credentials. The administration and supervision credentials are open only to teachers of two or more years of experience.
- D. Minor in education for students who are not preparing for a teaching credential.
- E. Minor in psychology.

BACHELOR'S DEGREE WITH TEACHING CREDENTIAL

General Course Requirements. Candidates for degrees in one of the majors in education must fulfill all the general requirements for the bachelor's degree which are set forth on page 49.

The course, Introduction to Education, is prerequisite to all other education courses and should be taken preferably in the last half of the sophomore year. If taken in the upper division by transfer students, upper division credit may be received for the course if desired. This course should be followed by the course, Educational Psychology, ordinarily taken in the junior year. The course, Measurement in Education, should follow the course, Educational Psychology. General Psychology is prerequisite to both Introduction to Education and Educational Psychology. Further information concerning required courses in education for a particular teaching certificate will be found under the major curriculum subhead.

Scholarship Requirements. A student may not register for directed teaching unless he has at least an average grade of C in his college subjects. The average of all grades received in courses in education, including directed teaching, must not fall below C. If at the conclusion of any semester the average grade should fall below C, the student may not register for directed teaching until the C average is reestablished. No student may be graduated or recommended for teaching who has not maintained at least a C average in directed teaching.

Directed Teaching. Directed teaching will ordinarily be assigned in Santa Barbara and vicinity, except where other arrangements are necessary. In the latter case, the student himself must arrange for transportation. Unit credit for teaching will be allowed only for work completed under the direction and with the approval of the Chairman of the Department of Education or his staff. Experienced teachers may be excused from a certain amount of directed teaching after ability to teach has been demonstrated on campus under the direction of the supervisors of directed teaching. However, such credit will not be considered as fulfilling unit requirements toward graduation.

Teaching and Observation Facilities. The public schools afford the laboratory for observation and directed teaching. Student teachers in early childhood and elementary education are, as a rule, assigned to the local elementary schools

or placed in the schools of near-by communities. The local junior high schools and the high school are available for junior high and special secondary teacher preparation.

Proficiency Test Requirements. The following tests are required of all candidates for teaching credentials, including graduates from other institutions who desire a teaching credential from this College.

- A. Proficiency test in the certain statutory subjects* (reading, language, arithmetic, spelling, and penmanship).
- B. Speech test, except for those students who have passed Speech 11 in this College with a grade of C or higher.
- C. Music proficiency tests for students with majors in early childhood and elementary education. These tests are described under these two majors, respectively. See page 125.

For a more complete statement regarding tests, see page 54.

CREDENTIALS

Credentials for service in public schools in California are issued by the Commission of Credentials of the State Board of Education upon recommendation of institutions authorized for teacher training. There are certain acceptable standards which must be met by candidates for teaching credentials. These include such qualifications as intelligence, scholarship, aptitude for teaching, physical fitness, and personality.

The credentials are of two main types: (a) teaching and (b) administration or supervision. There are some general requirements for all credentials, and additional special requirements for each particular type of credential.

A. Teaching Credentials. Teaching credentials issued on recommendation of this College include: (a) kindergarten-primary, entitling the holder to teach kindergarten and in grades one through three; (b) elementary, entitling the holder to teach in grades one through eight; (c) junior high school, entitling the holder to teach in grades seven, eight, and nine in any elementary, junior high, or high school; (d) special secondary, entitling the holder to teach in a specified field in any and all grades in the schools. The preparation for the special secondary credentials, offered in this institution in art, homemaking, industrial arts education, music, physical education, speech arts, and correction of speech defects, is obtained through the several special departments. For further information, see descriptions under the departments.

Combination of Credentials. Any of the credentials may be earned by completing 120 units of prescribed work. Combinations leading to two or more credentials may be made, but each additional credential will require at least one semester of work beyond that required for a single credential.

B. Elementary Administration and Supervision Credentials. The College offers preparation for three types of credentials under this classification.

1. Elementary School Administration Credential
2. Elementary School Supervision Credential
3. Special Supervision Credential.

* The statutory subjects are defined in School Code Section 3.761 as follows:

"The course of study in the elementary schools of each city, county, and city and county, shall include instruction in the following prescribed branches in the several grades in which each may be required in the course of study adopted in pursuance of this Article, viz: (1) reading, (2) writing, (3) spelling, (4) language study, (5) arithmetic, (6) geography, (7) history of the United States and of California, (8) civics, including a study of the Constitution of the United States, (9) music, (10) art, (11) training for healthful living, (12) morals and manners."

(1) *Elementary School Administration Credential*. The program for those desiring the elementary school administration credential is designed to enable the candidate to obtain this credential at the earliest date permissible under the provisions of the regulations set up by the State Department of Education. Ordinarily it will require four summer sessions, or two summer sessions of twelve units each, plus the field work to obtain this credential. Thus, the employed teacher may complete the work without a leave of absence or giving up any of his regular teaching.

Possession of a valid general elementary credential and verification of two years of successful teaching experience in the elementary school are required for the elementary administration credential. This credential is the authorization upon which a county board of education may issue a certificate to administer and supervise *elementary* schools as superintendent, deputy superintendent, assistant superintendent, principal, vice-principal, supervisor, or curricula coordinator in the county.

The applicant must complete at least 30 semester units of work in addition to fulfilling all requirements for the general elementary credential. Courses offered in the regular college year and in the summer sessions to meet this requirement are:

Background courses: (If these have been taken prior to the A.B. degree and the general elementary credential, upper division general and/or professional electives must be substituted.)

	Units
Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3

Specific required courses:

Education 102. History of American Education	2
Education 117. Pupil Personnel and Counseling	2
Education 133. Supervision of Instruction	2
Education 139. Curriculum Construction for Elementary Schools	2
Education 140. The Principal and His School	2
Education 143. Elementary School Administration	2
Education 148. California School Law and Finance	2
Education 149. Field Work in Elementary Administration and Supervision	3-3

(2) *Elementary School Supervision Credential*. This credential requires, in addition to the holding of the general elementary credential, verification of two years of successful teaching experience in the elementary schools, and 24 semester units of upper division or graduate work. The Elementary School Supervision Credential is the authorization upon which a county board of education may issue a certificate to supervise or coördinate instruction in the *elementary* schools of the county. The requirements for this credential may be completed in three summer sessions, plus the field work. Courses offered in the regular college year and in the summer sessions to meet this requirement are:

Background courses: (If these have been taken prior to the A.B. degree and the general elementary credential, upper division general and/or professional electives must be substituted.)

Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3

Specific courses :	Units
Education 102. History of American Education.....	2
Education 117. Pupil Personnel and Counseling	2
Education 133. Supervision of Instruction	2
Education 139. Curriculum Construction for Elementary Schools	2
Education 148. California School Law and Finance	2
Upper division general and/or professional electives	4

(3) *Special Supervision Credential*. This credential requires, in addition to the holding of a special credential authorizing teaching in a special subject field, two years of successful teaching experience. It authorizes the holder to supervise instruction in the special field indicated in the credential held. Ten semester units of work are required in addition to those needed for the special credential. (See the department chairman concerned with the work of the special secondary credential held.)

Physical Examinations for Candidates for Teacher-Credentials

- 1. All new students, freshmen and transfers, must pass a physical examination given by the College Physician.
- 2. When all prospective teaching majors have completed a total of 45 units, another examination will be given by the College Physician.
- 3. All candidates who have been absent for one or more semesters must pass a physical examination before credit may be given for courses undertaken upon their return.

Minor in Education

A minor in education is offered for those who are not expecting to obtain a teaching credential. The following courses in education constitute the minor:

Education 57. Introduction to the Study of Education.....	3
Education 101. History of Education	2
or Education 102. History of American Education	2
Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 180. Educational Sociology	2
Elective courses in education	4

Major in Early Childhood Education

General Description. This major leads to the degree of Bachelor of Arts and to a credential which entitles its holder to teach in the kindergarten and the first three grades. Professional courses for students with a major in early childhood education are integrated and planned to give a background in the field of early childhood, ages two to ten. Required courses in education are:

Education 57. Introduction to the Study of Education.....	3
Education 60. Early Childhood Education Orientation	1
Psychology 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3
Education 122A-122B. Early Childhood Education Play Activities	2-2
Education 125. Story Telling	2
Education 126. Principles of Preschool Education.....	2

Education 129. Early Childhood Education	Units
Administration	1 or 2 or 3
Education 147. Audio-Visual-Radio Education	1 or 2
Education EC 190A. Early Childhood Education Procedure (Kindergarten)	2
Education EC 190B. Early Childhood Education Proce- dure (Primary) with Primary Forum and Observation..	4
Education MEC 190. Early Childhood Music Education . . .	2
Education EC 191. Observation and Participation	1
Education EC 192A. Directed Teaching in Kindergarten . . .	4
Education EC 192B. Directed Teaching in Primary	6
Education EC 193A-193B. Teaching Problems in Early Childhood Education	$\frac{1}{2}$ - $\frac{1}{2}$

Directed Teaching. Students are required to spend five half-days per week in the classroom and must reserve ample time for preparation. Ten units of directed teaching are required in the senior year. Students receiving a grade lower than C in directed teaching will not be recommended for teaching. See *Scholarship Requirements*, page 71.

Required Tests. Before registering for directed teaching, students must pass the proficiency tests in certain statutory subjects and speech. For complete information, see pages 54 and 74. The following proficiency tests in music are also required of students with a major in early childhood education.

1. Before enrolling in any music course, all students must take a standard native-capacity test, and a test in ability to carry a tune. These are scheduled at the beginning of each semester and must be taken at the time announced.

2. Ability in piano must be demonstrated by passing a final proficiency examination in the course, Piano E.C.E., before assignment to directed teaching. The specific piano courses for majors in early childhood education prepare students to meet the requirements.

Recommendation for the Minor. A minor in music is strongly recommended and consists of the following courses in music: Music 1A, 5, 6A-6B, 30A-30B, 30C-30D, 108A-108B, 108C-108D, 113A-113B, and Education MEC 190. No credit will be given for courses designed to remove deficiencies in preparation for this minor.

Combination Credentials. If a combination of kindergarten-primary and elementary credential is desired, at least an additional semester will be required. Consult the department adviser about additional course requirements.

Major in Elementary Education

General Description. This major leads to the degree of Bachelor of Arts and to a credential which entitles its holder to teach in grades one to eight, inclusive. The following courses in education are required:

Education 57. Introduction to the Study of Education	3
Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3
Education 147. Audio-Visual-Radio Education	2
Education E1 190. Elementary School Procedure	5
Education ME 190. Elementary Music Education	2
Education E1 192. Directed Teaching in Elementary Schools	4-4
Education E1 193. Teaching Problems in Elementary Educa- tion	2

Education El 190, Procedure, must be completed before engaging in directed teaching. Eight units in directed teaching are required in the senior year. Students carrying 4 to 6 units of directed teaching in any semester may be required to reserve a half-day for that directed teaching. Students receiving a grade lower than C in directed teaching will not be recommended for teaching. See *Scholarship Requirements*, page 71. All students expecting to pursue directed teaching are required to confer with the department adviser during the two days preceding registration.

Required Tests. Before registering for directed teaching, students must pass the proficiency tests in the certain statutory subjects and speech. For complete information, see pages 54 and 74. The following proficiency tests in music are also required of students with a major in elementary education.

Students in Musicianship 1A are required to take a test in ability to carry a tune and, in addition, pass a standard native-capacity test. If the test is passed satisfactorily, the student may enter the required courses in music. If the test is not passed satisfactorily, the student is required to take Music 5, and is not recommended to teach music.

Minor. Candidates are not required to complete a minor. However, minors in art, music, physical education, industrial education, and speech correction are very valuable for teachers and it is recommended that students who can do so shall fulfill the requirements for one of these minors.

Combination Credentials. If a combination of either an elementary and kindergarten-primary or an elementary and junior high credential is desired, an additional semester will be required. The student should consult his adviser concerning additional course requirements.

For a special credential in the correction of speech defects, in addition to the elementary credential, see page 167.

For a special secondary credential in music, in addition to the elementary credential, see page 154.

Major in Junior High Education

General Description. This major leads to the degree of Bachelor of Arts and a credential which entitles the holder to teach in grades 7, 8, and 9 in any California school. The following courses in education are required:

	Units
Education 57. Introduction to the Study of Education	3
Education 101. History of Education	2
or Education 102. History of American Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3
Education 147. Audio-Visual-Radio Education	2
Education J 190. Junior High School Procedure	5
Education J 192. Directed Teaching in Junior High School	4-4
Education J 193. Teaching Problems in Junior High Education	1-1

Elective courses chosen from the field of education after consultation with the adviser of junior high education must be used to make a total of 30 units in that field with an average grade not lower than C:

Education 106. Philosophy of Education	2
Education 164. Educational and Vocational Guidance	2 or 3
Education 169. Professional Adjustment of the Teacher	2
Education 170. Secondary Education	2
Education 180. Educational Sociology	2

Education J 190, Procedure, should be completed before enrolling in directed teaching. Eight units of directed teaching, with a grade of C or higher are required before graduation. Students receiving lower than C in courses J 190 or J 192 will not be recommended for teaching. See *Scholarship Requirements*, pages 166 and 167.

Candidates may qualify for the general junior high school credential in two ways:

1. By completing a major in junior high school education and two minors in subjects taught in the secondary school; or another major and one minor in a subject taught in the secondary field.

2. By completing a major in another department in this institution and, in addition, the requirements for the general junior high school education credential as outlined above, except that the completion of only one minor in a subject taught in secondary school will be required instead of two.

Requirements for the Minors. For course requirements for the minors selected, see description under the departments in which the minors are administered.

Required Tests. Before registering for directed teaching, students must pass the proficiency tests in certain statutory subjects and speech. For complete information, see pages 54 and 74.

Combination Credentials. Students with a major in junior high school education who desire an elementary credential must take, in addition to the requirements for the major in junior high school education, other prescribed work amounting to at least one extra semester. The elementary credential adviser will decide what additional courses must be taken.

For a special credential in the correction of speech defects, see page 167.

LOWER DIVISION COURSES

57. Introduction to the Study of Education. (3) I, II.

Mr. CHENOWETH and Mr. HAYES

A general introduction to the various fields of educational thought and practice. Required of all candidates for any California teaching credential. Should precede all other courses in education. Lectures, readings, reports, and discussions.

60. Early Childhood Education Orientation. (1) I, II.

Miss LEONARD

An overview of early childhood education as a field of study and a profession. Designed to meet the needs of lower division students and entering transfers intending to major in early childhood education.

UPPER DIVISION COURSES

101. History of Education. (2) I.

Mr. HAYES

The development of educational thought and practices from primitive times viewed as a phase of social progress. Ancient and medieval conceptions will be analyzed with reference to their effect on modern education.

102. History of American Education. (2 or 3) II.

Mr. HAYES

The development of significant educational ideals and movements and the institutions in which they were embodied as a basis for the analysis of present-day problems.

106. **Philosophy of Education.** (2 or 3) I, II. _____
 Primary philosophies influencing contemporary American education and their possible outcomes. Construction of an educational philosophy best suited to developing effective citizenship in a democratic society.
107. **Statistical Techniques.** (3) I or II. Mr. ALTUS
 This course is identical with Psychology 107.
110. **Educational Psychology.** (3) I, II. _____
 Prerequisite: Psychology 1A, Education 57.
 Application of the principles and findings of general psychology to the educative process, with special emphasis on learning as it functions in the school environment.
111. **Child Growth and Development.** (2) I, II. Mrs. BEAVER
 Prerequisite: Psychology 1A.
 The mental and physical growth and development of the school child in relation to personal and social adjustment, with special emphasis on the general laws of growth, the health of the school child, and preventive hygiene. Directed observation of normal children is required.
- 111N. **Growth and Development of the Young Child.** (2) I, II. Miss VANDEMAN
 Prerequisite: 2 units in courses 126 or N190 completed or taken concurrently.
 Discussion and summarization of the principles of physical, intellectual, social and emotional development as noted in each child. Based upon observations of individual children in the preschool group.
117. **Pupil Personnel and Counseling.** (2) Mr. HAYES
 Study of the practices and procedures employed in school counseling and guidance. Techniques and practices employed in child study and parent education.
119. **Measurement in Education.** (3) I, II. Mr. DURFLINGER
 This course should ordinarily follow the course in Educational Psychology 110. Main purposes are to acquaint the student with the available standard measurements and to enable him to construct valid objective tests in his field. Tabulation of scores, simple statistical measures, scoring examinations, various types of tests and the functions of each, and the broader purposes and techniques of evaluation.
- 119(P.E.). **Measurement in Physical Education.** (2) I. Mr. LANTAGNE, Miss VAN FOSSEN
- 122A-122B. **Early Childhood Education Play Activities.** (2-2) Yr. Miss LEONARD
 Given in correlation with Industrial Arts 190A-190B, Early Childhood Education Integrated Craftwork, and Music 113A-113B, Music for Plays, Festivals, and Pageants. Elements of dramatic play as an educational factor in the early childhood years, including organized, as well as spontaneous, dramatic activities of children; laboratory experience in the production and evaluation of creative dramatizations.
125. **Story Telling.** (2) I. Miss VANDEMAN
 Fundamental principles underlying the choice and use of children's stories in the early childhood levels. Practical experience in telling stories to a group, with evaluation of selection and techniques; building the prospective teacher's own repertoire of literature for young children.

126. **Principles of Preschool Education.** (2) I. Miss VANDEMAN
Special emphasis is given to principles of group and individual guidance measures and problem tendencies, as applied throughout the school of early childhood. Discussion of observations in the younger groups of the school of early childhood, with reference to the influence of outdoor and indoor environment, equipment, routines, supervision, parent-child relationships, home-school contacts, and parent conferences.
129. **Early Childhood Education Administration.** (1, 2, or 3) I, II. Miss LEONARD
Formulation of long-term plans and construction of a curriculum for a primary group. Habits of independent study and research are encouraged through participation in a survey of some field as early childhood education or other chosen topic.
133. **Supervision of Instruction.** (2) The STAFF
The object of this course is to make the prospective principal or supervisor acquainted with the latest theories and best practices current today in the guidance of teachers at work.
135. **Remedial Reading.** (2) I, II. Mr. HAYES
Methods and materials of instruction and diagnosis, and remedial treatment of difficulties in reading in the elementary schools.
139. **Curriculum Construction for Elementary Schools.** (2) Mr. CHENOWETH
Construction of curricula; basic principles and practices from the psychological, sociological, and philosophical standpoints; scope and sequence in making curricula. Copies of curricula gathered from various sources available for laboratory study.
- 140 (Adm.). **The Principal and His School.** (2) Mr. CHENOWETH
The responsibility of the principal in the school organization and related problems. A continuation of course 143.
143. **Elementary School Administration.** (2) Mr. CHENOWETH
Federal, state, county, and city school organization, administration and supervision. Analysis of current methods of administration and supervision; problems of organization and educational leadership, public relations, working conditions and materials, and similar problems suited to the interest of the group.
147. **Audio-Visual-Radio Education.** (1 or 2) I, II. Mr. SANDS
Various kinds of visual, audio-visual, and radio aids of value in classroom teaching in elementary and secondary schools; handling and use of these aids, discussions of theoretical foundations, and special applications of various materials to particular areas of education. One lecture and three hours of demonstration laboratory evaluation per week.
148. **California School Law and Finance.** (2) Mr. CHENOWETH
School finance, housing, business administration, and legal aspects of education; California School Law as presented in the School Code and interpreted by the State Attorney General and the State Superintendent of Public Instruction. Important rules and regulations of the State Board of Education relating to administration of the schools.

149 (Adm.). Field Work in Elementary Administration and Supervision.

(3-3) Yr.

Mr. CHENOWETH

Prerequisite: courses 140, 143.

Designed to give the candidate practical experience in (1) federal, state, county, and city school organization, administration and supervision; school finance; housing; business administration; and legal aspects of education; (2) the organization and administration of the elementary schools; (3) supervision of instruction and curriculum in the elementary schools.

164. Educational and Vocational Guidance. (2 or 3) I or II. Mr. MONROE

Aims, objectives, and practices of guidance as affecting the classroom teacher in elementary and secondary schools.

169. Professional Adjustment of the Teacher. (2) I, II. Mr. CHENOWETH

Professional problems which a beginning teacher encounters in endeavoring to make adjustments to the life of the local school and community. Problems of personality, placement, salaries, school law, school records, professional ethics, community activities, and social life and attitudes.

170. Secondary Education. (2) I, II. Mr. MATHER

Analysis of present practices and problems of the American secondary school. Survey of the historical background, objectives, and functions. Application to organization, programs, curricula, methods and personnel.

180. Educational Sociology. (2) I.

Our American culture, its social groups, processes, institutions, and changes, with emphasis upon its relations to education in general and the school in particular. Stress is laid on the influence of organized education as a factor in social evolution. A background of an introductory course in general sociology is valuable, but not required.

190. Teaching Procedure.

All 190 courses are courses in methods of teaching. They include a study of the procedures in use in teaching the particular area or department of credential, or at the particular level indicated in the title of the course. The courses in the general fields include observation of demonstration teaching followed by discussion. The special secondary fields offer methods of both the elementary and secondary levels. See respective department chairmen for prerequisites for 190 courses.

A 190A. Teacher's Course in Elementary School Art. (2) I. Mrs. DOOLITTLE**A 190B. Teacher's Course in Art for Secondary School. (2) II.**

Mrs. DOOLITTLE

EC 190A. Early Childhood Education Procedure (Kindergarten). (2) I.

Miss LEONARD

EC 190B. Early Childhood Education Procedure (Primary) with Primary Forum and Observation. (4) II.

Miss LEONARD

EI 190. Elementary School Procedure. (5) I, II.

Miss BYERS

H 190. Teaching Procedures in Home Economics. (4) I, II. Mrs. SCHNELL**I 190A. Teaching Procedures in Industrial Arts Education. (2) I.**

Mr. ERICSON

- I 190B. **Content and Materials in Industrial Arts.** (2) II. Mr. ERICSON
- I 190C. **Curriculum Development in Industrial Arts.** (2) II. Mr. MONROE
- J 190. **Junior High School Procedure.** (5) I, II. Miss POND
- MEC 190. **Early Childhood Music Education.** (2) I. Miss VANDEMAN
- ME 190. **Elementary Music Education.** (2) I. Mrs. BARNETT
- MI 190. **Method of Teaching Instrumental Music.** (3) II. Mr. FAULKNER
- MP 190. **Methods of Teaching Piano.** (1) II. Miss WISHARD
- MS 190. **Secondary Music Education.** (2) II. Mrs. BARNETT
- MV 190. **Methods of Teaching Vocal Music.** (3) I. Mr. CHRISTY
- N 190. **Procedures in Nursery Education.** (2) II. Miss VANDEMAN
- P 190. **Teaching Procedures in Physical Education.** (2) I, II. Mr. HARDER
- Sc 190. **Natural Science in Education.** (3) I, II. Mr. WELLS
- Sp 190. **Speech Activities and Methods for Teachers.** (3) I, II.
Mr. SNIDECOR
191. **Observation and Participation.**
Special courses involving additional observation of master teaching, conferences, discussion and classroom participation.
- EC 191. **Observation and Participation.** (2) I, II.
Miss LEONARD, Miss VANDEMAN
- M 191. **Observation of Music Teaching.** (1) I. Mrs. BARNETT
192. **Directed Teaching.**
All 192 courses are concerned with directed teaching in the various fields and at the different levels indicated by the titles. Experience in classroom teaching carried on under supervision of classroom teachers and college supervisors. Planned to give the student opportunity to put into practice the principles of teaching and theories of education which have been presented and discussed previously in preliminary courses in education. Practical work in the classroom is supplemented by conferences with teachers and supervisors, and by written lesson plans and assigned work. Prerequisites required for all 192 courses. See respective chairmen.
- A 192A-192B. **Directed Teaching in Art.** (3-3) Yr. Mrs. DOOLITTLE
- EC 192A. **Directed Teaching in Kindergarten.** (4) I, II.
Miss LEONARD, Miss VANDEMAN
- EC 192B. **Directed Teaching in Primary.** (6) I, II.
Miss LEONARD, Miss VANDEMAN
- EI 192. **Directed Teaching in Elementary Schools.** (4-4) Yr. The STAFF
- H 192A. **Directed Teaching in Foods and Nutrition.** (2) I, II. Mrs. SCHNELL
- H 192B. **Directed Teaching in Homemaking.** (2) I, II. Mrs. SCHNELL

- H 192C. Directed Teaching in Textiles and Clothing. (2) I, II. Mrs. SCHNELL
- I 192A-192B. Directed Teaching in Industrial Arts. (3-3) Yr.
Mr. MONROE, Mr. SOULES
- J 192. Directed Teaching in Junior High School. (4-4) Yr. Miss POND
- M 192. Directed Teaching in Music. (2-2) Yr. The MUSIC STAFF
- N 192. Directed Teaching in Nursery School. (4) Miss LEONARD
- P 192. Directed Teaching in Physical Education. (2-6) I, II.
Mr. HARDER, Miss HODGKINS, Mr. WILTON
- Sp 192A. Directed Teaching in Speech. (4) I, II. Mr. SNIDECOR
- Sp 192B. Directed Teaching in Speech Correction. (4) I, II. Mr. SNIDECOR
193. Teaching Problems.
Individual and group problems of student teachers at the level of education indicated in the title. To be taken concurrently with course 192A-192B.
- EC 193A-193B. Teaching Problems in Early Childhood Education. ($\frac{1}{2}$ - $\frac{1}{2}$) Yr.
Miss LEONARD, Miss VANDEMAN
- E1 193. Teaching Problems in Elementary Education. (1-1) Yr.
Miss BYERS, Mrs. IRISH
- J 193. Teaching Problems in Junior High Education. (1-1) Yr. Miss POND
199. Studies in Education. (1-4) The STAFF
Study of special problems in various fields of education. Open only to advanced students approved by the chairman of the department.

Psychology

Major in Psychology. A major in psychology is offered for students who wish to complete their undergraduate preparation for psychological work in clinical, industrial, or educational fields. Thirty units of upper division work are required for the major.

Preparation for the Major.

Required:	Units
Psychology 1A-1B. General Psychology.....	3-3
Biology 10. Elementary Human Physiology.....	3
or Zoölogy 40A-40B. Introductory Animal Physiology...	3-3
Recommended: French, German, chemistry, physics, and	
Mathematics 1A (Mathematical Analysis).....	4

Course Requirements for the Major.

Psychology 1A-1B. General Psychology, 3-3, is a prerequisite for all upper division courses in psychology.

Psychology 106A. Experimental Psychology.....	3
Psychology 107. Statistical Techniques	3

A sequence of 24 units in upper division courses. Of these, 18 units shall be chosen in psychology; the remaining 6 units may be chosen from psychology

or, subject to approval, any upper division course in education, philosophy, or sociology; or political science courses approved by adviser, Units

Biology 130. Genetics..... 3

Minor in Psychology. A minor in psychology is offered primarily for students who are not working toward a teaching credential. However, those students in education who expect to enter a graduate school of education immediately upon completion of their undergraduate work will find it advisable to have a strong background in psychology. A college course in physiology is required for all psychology minors; preferably, the course in physiology should be taken before any psychology courses are attempted.

Course Requirements for the Minor.

Suggested for teaching majors:

Psychology 1A-1B. General Psychology..... 3-3

10 units of work to be elected from the following upper division courses:

Psychology 107. Statistical Techniques	3
Psychology 110. Educational Psychology	3
Psychology 112. Child Psychology	3
Psychology 113. Psychology of Adolescence.....	3
Psychology 126. Contemporary Psychology	2
Psychology 148. Psychology of Personality.....	3
Psychology 163. Clinical Measurements Techniques	3
Psychology 166. Clinical Psychology	3
Psychology 167. Remedial Techniques in Basic School Subjects	2-4
Psychology 168. Abnormal Psychology	3
Psychology 110. Educational Psychology	3
Psychology 176. Psychology of Elementary School Subjects	2
Psychology 178. Psychology of Exceptional Children.....	3

Suggested for nonteaching majors:

Psychology 1A-1B. General Psychology..... 3-3

10 units of work to be elected from the following courses:

Psychology 106. Elementary Experimental Psychology....	3
Psychology 107. Statistical Techniques	4
Psychology 112. Child Psychology	3
Psychology 113. Psychology of Adolescence.....	3
Psychology 126. Contemporary Psychology	2
Psychology 145. Social Psychology	2
Psychology 146. Differential Psychology	3
Psychology 148. Psychology of Personality	3
Psychology 163. Clinical Measurements Techniques.....	3
Psychology 166. Clinical Psychology	3
Psychology 168. Abnormal Psychology	3

LOWER DIVISION COURSES

1A. General Psychology. (3) I, II.

The STAFF

Introduction to the subject matter, methods, and techniques of scientific psychology; emphasis upon basic principles underlying the prediction and control of human behavior. Lectures, textbook and collateral readings, classroom demonstrations, and discussions. A sophomore course, not open to freshmen.

1B. General Psychology. (3) I, II.

Mr. GROVES

Prerequisite: course 1A. Required course for all psychology majors and minors.

Study of the higher types of human behavior; classic and recent experiments in the various fields of scientific psychology. Lectures, textbook and collateral readings, reports.

3. Introduction to Applied Psychology. (3) I or II.

The STAFF

Prerequisite: course 1A.

The application of psychology to law, medicine, religion, public service, industry, and business. Lectures, textbook and collateral reading.

5. College Work Techniques. (2) I, II.

Mr. DURFLINGER

Recommended for all students working below their capacities.

Laboratory practices in the techniques of collegiate study. Includes analyses of individual practices and their effectiveness in reading of various types, note taking, habits of concentration, use of library, preparation of papers, taking examinations, etc. The aim is to increase effectiveness in these functions by providing remedial work where improvement appears essential. This course is of value not only to the student personally, but also the prospective teacher.

UPPER DIVISION COURSES

104. Principles of Test Construction. (3) II.

Mr. ALTUS

Prerequisite: course 107.

Theories underlying the construction of objective tests, with primary emphasis upon validity and its meaning. Each student will be required to validate a test of his own devising. Primarily for psychology majors and minors.

106A. Experimental Psychology. (3) I.

Mr. GROVES

Design and performance of typical experiments on learning and thought activities, psychomotor functions, and sensation and perception. One hour lecture and six hours of laboratory per week.

106B. Experimental Psychology. (3) II.

Mr. GROVES

Critical survey of experimental evidence on special problems with individual laboratory projects. One hour of lecture and six hours of laboratory per week.

107. Statistical Techniques. (3) I or II.

Mr. ALTUS

Study of certain statistical techniques, such as measures of central tendency and of dispersion, the correlation of variables, the significance of differences and the like. The interpretation of statistical data in psychological and educational research.

108. Physiological Psychology. (3) I or II.

Mr. GROVES

Study of the physiological mechanisms of human behavior. Examination of the physical structure and development of the human nervous system, with special emphasis upon its integrated function in all types of behavior.

110. Educational Psychology. (3) I, II.

This course is identical with Education 110.

112. **Child Psychology.** (3) I or II. Mrs. BEAVER
The psychological aspect of infant and child behavior. Motor, mental, emotional, and social phases of growth, and the development of language, meaning, imagination, thinking, reasoning, and solving of problems. Stresses the basis for method in personality development.
113. **Psychology of Adolescence.** (3) I or II. Mrs. BEAVER
Study of the emotional, social, and intellectual growth of the adolescent, with special consideration of changing attitudes as the individual attains sexual maturation and adult physique.
126. **Contemporary Psychology.** (2) I or II. Mr. GROVES
Prerequisite: 12 units in psychology.
The emphasis will be upon the significant aspects of current psychological research. The class will be conducted as a seminar in which each student will present the results of his reading on some contemporary psychological problem. Required of seniors with a major in psychology.
145. **Social Psychology.** (2) I or II. The STAFF
The psychological phenomena of social behavior and the influence of the social group on the development of the individual during infancy, adolescence, and early adulthood. Ways of crowd and group behavior and their effect upon individual development through suggestion and imitation. The effects of public opinion and social control, racial and group prejudice, propaganda, and opinions about sex differences and race differences.
146. **Differential Psychology.** (3) I or II. Mr. GROVES
The study of data bearing on individual differences and of theories relating to their etiology.
148. **Psychology of Personality.** (3) I or II. Mrs. BEAVER
Prerequisite: six units in psychology.
Present-day analysis and measurement of personality from the theoretical and practical viewpoints; traits and types of personalities; relationship of character and personality.
163. **Clinical Measurements Techniques.** (3) I. Mr. ALTUS
The techniques of individual aptitude and intelligence testing, with special emphasis upon adolescent and adult groups. The interpretation of general aptitude-test data with such allied topics as the clinical significance of scatter, pattern analysis, and indices of deterioration. Two hours of lecture and three hours of laboratory per week.
166. **Clinical Psychology.** (3) I or II. Mr. ALTUS
Prerequisite: course 163.
An integration of the techniques of measuring aptitude and adjustment factors as applied to the individual case for purposes of diagnosis and clinical counseling. Structured adjustment tests such as the *Minnesota* and projective techniques, the *Rorschach* and the *Murray*, will be introduced as measures of nonintellectual factors in assaying problem cases. Two hours of lecture and three hours of laboratory per week.
167. **Remedial Techniques in Basic School Subjects.** (2-4). The STAFF
The diagnosis and treatment of reading, spelling, arithmetic, and other school disabilities in children and adults. A discussion of foreign language disability will be included in the course if desired. Clinical demonstration, testing, and training of typical cases.

168. **Abnormal Psychology.** (3) I or II. Mr. ALTUS
A study of those who deviate in terms of psychoneurosis, psychopathy, or psychosis. The symptoms entering into each of the syndromes; theories of causation of each of the various types of mental disorder.
176. **Psychology of Elementary School Subjects.** (2) I. Mr. DURFLINGER
For teachers of the elementary grades. Presents the findings of scientific studies regarding typical errors of children at different stages of school progress and shows methods found by psychological experimentation to be the most satisfactory aids in learning and teaching in school.
178. **Psychology of Exceptional Children.** (3) I or II. Mrs. BEAVER
A study of handicapped children, both mentally and physically, and of those with superior endowment. Favorable or unfavorable traits are considered in respect of their educational and social implications; the needs of the children determined, and methods of guidance recommended. Two lectures and two hours of laboratory per week.
199. **Special Study for Advanced Students.** (1-5) I, II. The STAFF
By permission of the chairman of the department, advanced students may carry on study or research under guidance of a member of the department.

ENGLISH

WILLIAM ASHWORTH, M.A., Professor of English.

MARTHA L. BERNET, M.A., Lecturer in English.

JOSEPH FOLADARE, Ph.D., Associate Professor of English.

GENEVIEVE W. HAIGHT, M.A., Assistant Professor of English.

GEORGE HAND, Ph.D., Associate Professor of English.

PAUL A. JONES, Ed.D., Associate Professor of English.

J. CHESLEY MATHEWS, Ph.D., Assistant Professor of English.

ROBERT E. ROBINSON, Ph.D., Assistant Professor of English.

JOSEPH S. STULL, Ph.D., Instructor in English.

DOUWE STUURMAN, M.A., B.Litt., Assistant Professor of English.

WARREN E. SCHUTT, A.B., Lecturer in English.

LAWRENCE WILLSON, Ph.D., Assistant Professor of English.

Students must have passed Subject A (either examination or course) before taking any course in English. Regulations concerning Subject A are stated on page 31.

Preparation for the Major. (1) Courses 1A-1B and 46A-46B or 83A-83B, with an average grade of C or higher; (2) history of England.

Requirements for the Major. 1. Students must present, by the first half of the junior year, a program to be examined and approved by the Chairman of the Department. The program may be amended from time to time after consultation with the Chairman.

2. The program must include a total of 40 units in English, 28 of which must be upper division. The following courses are required:

	Units
English 117J. Shakespeare	3
English 130A or 130B. Survey of American Literature or English 132. Studies in American Literature.....	3
English 152. Chaucer	3
English 153A. Introduction to the Study of Poetry.....	3
(This course must be taken by all English majors at the beginning of their junior year.)	
English 156. The Age of Elizabeth or English 157. The Age of Milton.....	3
English 166. The Age of Swift and Pope or English 167. The Age of Johnson.....	3
English 177. The Romantic Age or English 187. The Victorian Age.....	3
English 198. Comprehensive Final Examination.....	1

3. Foreign Language. Each student must complete French 4 or German 4 or demonstrate equivalent knowledge of either of these languages by passing an examination.

Requirement for the Minor. Students may take a minor by completing at least 18 units in English, 9 of which must be upper division.

Subject A: English Composition. No credit. I, II.

The STAFF

Three hours weekly. Required of all students who do not pass the examination in Subject A.

LOWER DIVISION COURSES

- 1A-1B. First-Year Reading and Composition.** (3-3) Yr. The STAFF
Beginning either semester.
1A. Intensive reading in selected literary masterpieces, accompanied by practice in composition.
1B. Further training in intensive reading and expository writing. English 1A-1B prerequisite to all other courses in English.
- 27. Newswriting.** (3) I. _____
- 41A-41B. Advanced Writing.** (3-3) Yr. Mr. HAND
Writing in connection with the reading of important books of the nineteenth and twentieth centuries. Consent of instructor required. 41A is not prerequisite to 41B.
- 46A-46B. Survey of English Literature.** (3-3) Yr. Beginning either semester. The STAFF
Study of English literature, with emphasis upon the more significant authors from Chaucer to the present.
- 83A-83B. Great Books.** (3-3) Yr. Beginning either semester.
83A. From Job to Dante. Mr. SCHUTT, Mr. STURMAN
83B. From Montaigne to Tolstoy. 83A is prerequisite to 83B.

UPPER DIVISION COURSES

- *106A. The Short Story.** (3) I. _____
The writing of original stories, and the analytic study of the form. Consent of instructor required.
- 106G. Problems of Composition.** (2) I. Mr. ROBINSON
Study and practice in reading, evaluating, and effecting improvement in the writing of expository prose. Consent of instructor required.
- 106H. Expository and Critical Writing.** (3) II. _____
The writing of essays and critical articles. Consent of instructor required.
- 110. The Development of the English Language.** (3) I. _____
- 114A-114B. The English Drama.** (3-3) Yr. Mr. FOLADARE
114A. From the miracle plays through Ben Jonson.
114B. From Beaumont and Fletcher through Shaw. 114A is not prerequisite to 114B.
- 116. The English Bible as Literature.** (3) II. Mr. ASHWORTH
- 117E. Shakespeare.** (3) I, II. The STAFF
- 117J. Shakespeare.** (3) II. Mr. WILLSON
For English majors.
- 125. The English Novel.** (3) I. _____
- 127. Advanced Journalism.** (3) II. _____
Prerequisite: English 27 or its equivalent.

* Not to be given, 1948-1949.

- 130A–130B. **Survey of American Literature.** (3–3) Yr. Mr. MATHEWS
 130A. From early seventeenth century to Whitman.
 130B. From Whitman to the present. 130A is not prerequisite to 130B.
132. **Studies in American Literature.** (3) I. Mr. WILLSON
 Main developments in American thought studied in the writings of Franklin, Edwards, Emerson, William James, Henry Adams, and H. L. Mencken.
140. **Comparative Literature.** (3) I. Mr. STUURMAN
 Readings in Oriental, Hebraic, Hellenic, and Christian literature.
143. **Interrelations of Literature and Philosophy.** (3) II. Mr. STUURMAN
 An attempt to arrive at working definitions of the terms literature and philosophy. Readings in Plato, Lucretius, Dante, and Goethe. Consent of instructor required.
152. **Chaucer.** (3) II. Mr. MATHEWS
- 153A–153B. **The Study of Poetry.** (3–3) Yr. Mr. HAND, Mr. WILLSON
 153A. Introduction to the study of poetry.
 153B. Contemporary verse. 153A is prerequisite to 153B.
156. **The Age of Elizabeth.** (3) I. ———
 Nondramatic literature of the Elizabethan period.
157. **The Age of Milton.** (3) II. Mr. HAND
166. **The Age of Swift and Pope.** (3) I. Mr. HAND
167. **The Age of Johnson.** (3) II. Mr. FOLADARE
177. **The Romantic Age.** (3) I. Mr. ROBINSON
187. **The Victorian Age.** (3) II. Mr. ROBINSON
190. **Literature in English after 1900.** (3) II. ———
191. **Children's Literature.** (3) II. Mrs. HAIGHT
 Extensive reading in children's literature. Emphasis upon the building of literary understanding in children and the analysis of principles underlying the choice of literature for children at successive age levels. (May not be counted toward English major or minor.)
198. **Comprehensive Final Examination.** (1) I, II. The STAFF
 The Comprehensive Final Examination of the undergraduate major in English must be taken at the end of the senior year. It will consist of two three-hour papers, the second of which will take the form of an essay. The Committee of Examiners will set the questions, and at its discretion may supplement them with an oral examination. The student should attend the general conferences held by the committee and may also consult individually with the members of the committee. The student's preparation for this examination will presumably extend throughout the entire period of his upper division residence.
199. **Special Studies in English.** (1–3) I, II. The STAFF
 Reading and conference for students of high scholastic standing.

FOREIGN LANGUAGES

- WILLIAM F. AGGELER, Ph.D., Assistant Professor of French.
PABLO AVILA, Ph.D., Assistant Professor of Spanish.
ROBERT BEACHBOARD, Doctorat d'Universite, Assistant Professor of French.
CHARLES G. FALLIS, Ph.D., Assistant Professor of Spanish and German.
PAUL PÉRIGORD, Ph.D., Professor of French Civilization.
EVA J. PROULX, M.A., Instructor in French.
EDA RAMELLI, M.A., Professor of Spanish.
ANDRES R. RAMÓN, LL.M., Lecturer in Spanish.
SAMUEL A. WOFSEY, Ph.D., Instructor in Spanish.

The Major in Spanish:

Preparation for the Major. Courses 1, 2, 3, 4 (with a grade of A or B), or four years of high school Spanish and course 25A–25B, or other equivalent to be tested by examination. If course 4 is passed with grade lower than B, the student must complete course 25A–25B as prerequisite to upper division courses.

Students who wish to make Spanish their major subject must have maintained at least an average grade of C in the college courses in Spanish taken prior to their junior year.

Only students who pronounce Spanish correctly and read it fluently will be admitted to upper division courses. Students transferring from other institutions may be tested by examination.

The Major. Required: Twenty-four upper division units.

Spanish 101A–101B. Conversation and Composition... (3–3) Yr.
(May be omitted if 25A–25B (3–3) has been passed with a grade of A or B)

Spanish 107A–107B. A Survey of Spanish Literature from the Middle Ages to the Nineteenth Century..... (3–3) Yr.

The remaining units may be completed from courses:	Units
Spanish 102. Pronunciation of Spanish	2
Spanish 103A–103B. Nineteenth-Century Literature	3–3
Spanish 104A–104B. Spanish-American Literature	3–3
Spanish 111. Cervantes' <i>Don Quixote</i>	2
Spanish 113. Eighteenth-Century Literature	2

The Department of Foreign Languages offers minors in French and Spanish.

Preparation for the Minor. Courses 1, 2, 3, and 4 or four years of high school work in the chosen language. Students entering from high school and those completing course 4 with a grade lower than B must complete course 25A–25B.

The Minor. A minimum of ten upper division units in the chosen language is required.

French

LOWER DIVISION COURSES

In courses 1, 2, 3, and 4, sections meet five hours weekly.

1. **Elementary French. Beginners' Course.** (4) I, II. The STAFF

2. **Elementary French** (continuation of 1). (4) I, II. The STAFF
3. **Intermediate French.** (4) I, II. The STAFF
4. **Intermediate French** (continuation of 3). (4) I, II. The STAFF
- 25A–25B. **Advanced French.** (3–3) Yr. Mr. BEACHBOARD
Prerequisite: course 4 or the equivalent.
40. **Survey of French Culture and Civilization.** (2) I, II. Mr. PÉRIGORD
Presentation of the larger cultural elements in European history as caused, influenced, diffused, or interpreted by the French people. Lectures in English, reading in French or English.

UPPER DIVISION COURSES

- 101A–101B. **Conversation and Composition.** (3–3) Yr. Mr. AGGELER
- *109A–109B. **A Survey of French Literature from the Middle Ages through the Nineteenth Century.** (3–3) Yr. Mr. BEACHBOARD
- 109M–109N. **A Survey of French Literature and Culture.** (3–3) Yr. Mr. PÉRIGORD
The Middle Ages through the nineteenth century. Lectures are given in English. Required reading is in French.
Prerequisites: a reading knowledge of French.
- 112A–112B. **The Nineteenth Century and Contemporary Literature.** (3–3) Yr. Mr. BEACHBOARD
199. **Special Studies in French.** (1–3) I, II. The STAFF
Individual investigations in literary fields.

German

LOWER DIVISION COURSES

In courses 1, 2, 3, and 4, sections meet five hours weekly.

1. **Elementary German. Beginners' Course.** (4) I, II. The STAFF
2. **Elementary German** (continuation of 1). (4) I, II. The STAFF
3. **Intermediate German.** (4) I, II. The STAFF
4. **Intermediate German** (continuation of 3). (4) I, II. The STAFF

Spanish

LOWER DIVISION COURSES

In courses 1, 2, 3, and 4, sections meet five hours weekly.

1. **Elementary Spanish. Beginners' Course.** (4) I, II. The STAFF
2. **Elementary Spanish** (continuation of 1). (4) I, II. The STAFF
3. **Intermediate Spanish.** (4) I, II. The STAFF

* Not to be given, 1948–1949.

4. Intermediate Spanish (continuation of 3). (4) I, II.	The STAFF
25A-25B. Advanced Spanish. (3-3) Yr.	Mr. AVILA
Prerequisite: course 4 or the equivalent.	

UPPER DIVISION COURSES

101A-101B. Conversation and Composition. (3-3) Yr.	Mr. AVILA
102. Pronunciation of Spanish. (2) I, II.	Miss RAMELLI
103A-103B. Nineteenth-Century Literature. (3-3) Yr.	Mr. WOFSEY
*104A-104B. Spanish-American Literature. (3-3) Yr.	Mr. AVILA
107A-107B. A Survey of Spanish Literature from the Middle Ages to the Nineteenth Century. (3-3) Yr.	Miss RAMELLI
111. Cervantes' Don Quixote. (2) I.	Mr. RAMÓN
113. Eighteenth-Century Literature. (2) II.	Mr. RAMÓN
199. Special Studies in Spanish. (1-3) I, II. Individual investigations in literary fields.	The STAFF

* Not to be given, 1948-1949.

HOME ECONOMICS

CHARLOTTE E. BIESTER, M.A., Professor of Home Economics.
 ALICE V. BRADLEY, M.A., Professor of Home Economics.
 ELAINE C. KINGSTON, B.S., Instructor in Home Economics.
 FLORENCE C. MEREDITH, M.A., Professor of Home Economics.
 RUTH MAJOR, Ph.D., Assistant Professor of Home Economics.
 DOROTHY M. SCHNELL, M.S., Assistant Professor of Home Economics.
 FRANCES M. SPIKE, M.S., Lecturer in Home Economics.
 JEANNETTE STEARNS, M.A., Assistant Professor of Home Economics.
 ANN VANDENBERG, A.B., Assistant in Home Economics.
 MARIE WILSON, M.S., Instructor in Home Economics.

Requirements for the Major in Home Economics in a Liberal Arts Program.
 The degree of Bachelor of Arts requiring a minimum of 24 units in home economics is offered in a Home Economics Liberal Arts program. This curriculum is recommended for students who are interested in a program of general home economics rather than in a specialized field. The required courses include:

Home Economics 4. Selection and Care of Household Equip- ment	Units 2
Home Economics 9C. Food Study	3
Home Economics 90. Textile Study	2
Home Economics 93. Dress Design and Selection.....	2
Home Economics 95. Clothing Construction	3
Home Economics 101. Advanced Clothing Construction....	3
Home Economics 106. Meal Management	2
Home Economics 107. Home Management Principles.....	2
Home Economics 110. Nutrition and Health of the Family..	2 or 3
Home Economics 111. Clothing Economics	2
Home Economics 141. Consumers and the Market.....	2
Home Economics 166A. Child Care and Health.....	2

Additional required courses:

American History and Institutions.....	2-2
Art 103. Home Planning and Decoration.....	3
Applied Arts	6
English 1A-1B. First-Year Reading and Composition....	3-3
Health Education 5. Personal and Home Health.....	2
Natural Science electives	9
Philosophy elective	3
Physical Education electives	2
Psychology elective	3
Social Science electives	9

Requirements for the Major in Home Economics with a Specialized Field.
 Four fields of specialization, with the degree of Bachelor of Arts, are offered in home economics. A minimum of 40 units is required in each respective field.

I. Dietetics (for students preparing for dietetic internships)

Required courses:

	Units
Home Economics 4. Selection and Care of Household Equipment	2
Home Economics 9A-9B. Food Study	3-3
Home Economics 66A. Child Care and Health.....	2
Home Economics 90. Textile Study	2
Home Economics 93. Dress Design and Selection.....	2
Home Economics 95. Clothing Construction	3
Home Economics 101. Advanced Clothing Construction....	3
Home Economics 103A-103B. Nutrition and Dietetics.....	3-3
Home Economics 106. Meal Management	2
Home Economics 107. Home Management Principles.....	2
Home Economics 130. Home Management Practice.....	2
Home Economics 134. Organization and Administration of Institutions	2
Home Economics 135. Institutional Buying	2
Home Economics 138. Quantity Cookery	2
Home Economics 141. Consumers and the Market.....	2

Additional required courses:

Art 1. Color and Design	2
Art 102. Weaving	2
or Art 110. Needlework	1 or 2
Art 103. Home Planning and Decoration.....	3
Bacteriology 1. General Bacteriology	3
Chemistry 2A-2B. Introductory Chemistry	3-3
or Chemistry 2C. Introductory Chemistry	4
Chemistry 10A. Organic Chemistry	3
Chemistry 100. Physiological Chemistry	3
Chemistry 101B. Food Chemistry	2
Biology 10. Elementary Human Physiology	3
Education 57. Introduction to Education	3
Education 110. Educational Psychology	3
Education 192A. Directed Teaching.....	2
H. E. 199. Special Problems—Methods of Teaching Nutrition	2
English 1A-1B. First-Year Reading and Composition.....	3-3
English elective	3
Health Education 5. Personal and Home Health.....	2
Physical Education elective	2
Psychology 1A. General Psychology	3
Sociology 120. Marriage and the Family.....	3
Social Science elective	3
Philosophy elective	3
History 76A-76B. American History and Institutions.....	2-2

Other recommended courses:

Economics 6A. Principles of Accounting	3
Economics 118A. Commercial Law	3
Speech 31. Public Speaking	3
Speech 40. Radio Broadcasting	3
Speech 140. Radio Broadcasting	3

	Units
English 126. Magazine Article Writing	3
or English 127. Advanced News Writing.....	3
Graphic Arts 70A. Elementary Photography.....	3
Graphic Arts 171. Occupational Photography	3
Home Economics 102. Experimental Cookery.....	2

II. Institutional Management and School Lunch Work

Required courses:

Home Economics 4. Selection and Care of Household Equipment	2
Home Economics 9A-9B. Food Study	3-3
Home Economics 66A. Child Care and Health.....	2
Home Economics 90. Textile Study	2
Home Economics 93. Dress Design and Selection.....	2
Home Economics 102. Experimental Cookery	2
Home Economics 103A. Nutrition and Dietetics	3
Home Economics 103B. Nutrition and Dietotherapy	3
Home Economics 106. Meal Management	2
Home Economics 107. Home Management Principles.....	2
Home Economics 111. Clothing Economics	2
Home Economics 130. Home Management Practice	2
Home Economics 134. Organization and Administration of Institutions	2
Home Economics 135. Institutional Buying	2
Home Economics 138. Quantity Cookery	2
Home Economics 141. Consumers and the Market	2
Home Economics 199. Problems in Home Economics.....	1-3

Additional required courses:

Art 1. Color and Design	2
Art 103. Home Planning and Decoration.....	3
Economics 1A-1B. Principles of Economics.....	3-3
or Economics 2. Survey of Economics.....	3
Economics 6A. Principles of Accounting	3
Economics elective	3
English 1A-1B. First-Year Reading and Composition.....	3-3
English 27. News Writing.....	3
Speech 11. Fundamentals of Speech	3
Speech 40. Radio Broadcasting	3
History 76A-76B. American History and Institutions.....	2-2
Applied Arts electives.....	6
Health Education 5. Personal and Home Health.....	2
Natural Science electives.....	12
Philosophy elective	3
Physical Education electives.....	2
Psychology 1A. General Psychology.....	3
Education 57. Introduction to the Study of Education.....	3
Education 110. Educational Psychology	3

III. Merchandising and Business

Required courses:

Home Economics 4. Selection and Care of Household Equipment	2
Home Economics 9A-9B. Food Study	3-3

	Units
Home Economics 10. Nutrition and Health of the Family . . .	2 or 3
Home Economics 66A. Child Care and Health	2
Home Economics 90. Textile Study	2
Home Economics 93. Dress Design and Selection	2
Home Economics 95. Clothing Construction	3
Home Economics 101. Advanced Clothing Construction	2
Home Economics 106. Meal Management	2
Home Economics 107. Home Management Principles	2
Home Economics 111. Clothing Economics	2
Home Economics 121. Tailoring	2
Home Economics 125. Demonstration Methods	2
Home Economics 130. Home Management Practice	2
Home Economics 141. Consumers and the Market	2
Home Economics 199. Problems in Home Economics	1-3

Additional required courses:

Art 1. Color and Design	2
Art 102. Weaving	1 or 2
or Art 110. Art Needlework	1 or 2
Art 103. Home Planning and Decoration	3
Art 108A-108B. Design of Costume Accessories	2-2
Economics 1A-1B. Principles of Economics	3-3
Economics 6A. Principles of Accounting	3
Economics elective	3
English 1A-1B. First-Year Reading and Composition	3-3
English 28. Feature Writing	3
Speech 11. Fundamentals of Speech	3
Speech 40. Radio Broadcasting	3
History 76A-76B. American History and Institutions	2-2
Applied Arts electives	6
Health Education 5. Personal and Home Health	2
Natural Science electives	9
Philosophy elective	3
Physical Education electives	2
Psychology 1A. General Psychology	3

IV. Special Secondary Teaching Credential in Home Economics

Required courses:

Home Economics 4. Selection and Care of Household Equipment	2
Home Economics 9A-9B. Food Study	3-3
Home Economics 66A. Child Care and Health	2
Home Economics 90. Textile Study	2
Home Economics 93. Dress Design and Selection	2
Home Economics 95. Clothing Construction	3
Home Economics 101. Advanced Clothing Construction	2
Home Economics 103A. Nutrition and Dietetics	3
Home Economics 106. Meal Management	2
or Home Economics 111. Clothing Economics	2
Home Economics 107. Home Management Principles	2
Home Economics 130. Home Management Practice	2
Home Economics 133. Laboratory in Child Care and Development	2
Home Economics 141. Consumers and the Market	2

One of the following:

	Units
Home Economics 102. Experimental Cookery.....	2
Home Economics 103B. Nutrition and Dietotherapy ...	3
Home Economics 138. Quantity Cookery	2

Additional required courses:

Art 1. Color and Design	2
Art 103. Home Planning and Decoration	3
Applied Art elective.....	2
Education 57. Introduction to the Study of Education	3
Education 110. Educational Psychology	3
Education 170. Secondary Education	2
Education H 190. Teaching Procedures in Home Economics	4
Education H 192. A, B, C	4
(H 192A. Directed Teaching in Foods and Nutrition..	2)
(H 192B. Directed Teaching in Home Management...	2)
(H 192C. Directed Teaching in Textiles and Clothing.	2)
Education 147. Audio-Visual-Radio	1 or 2
Psychology 1A. General Psychology	3
Philosophy elective	3
Physical Education elective	2
Health Education 5. Personal and Home Health	2
Bacteriology 1. General Bacteriology	3
Chemistry 2A-2B. Introductory Chemistry	3-3
or Chemistry 2C. Introductory Chemistry	4
Chemistry 10A. Organic Chemistry	3
Chemistry 100. Physiological Chemistry	3
Chemistry 101A. Textile Chemistry	2
Chemistry 101B. Food Chemistry	2
Biology 10. Elementary Human Physiology	3
History 76A-76B. American History and Institutions	2-2
Economics 2. Survey of Economics	3
Sociology 120. Marriage and the Family	3

To qualify for a recommendation from the department for a special secondary credential in home economics, special course requirements, completion of proficiency tests, demonstration of scholastic achievement, and a recommendation by the faculty of the Department of Home Economics is required. Students seeking a recommendation from the department for teaching must have a B average or higher in Education H 192, Directed Teaching.

Offerings to Students Not Majoring in Home Economics.

A number of courses in home economics are open, without prerequisites, to students with majors in other departments. These courses are Home Economics 4, Selection and Care of Household Equipment; 9C, Food Study; 66, Child Care and Health; 90, Textile Study; 93, Dress Design and Selection; 107, Home Management Principles; 108, Consumer-Buying; 110, Nutrition and Health of the Family.

Subject Matter Areas.

The Home Economics Department offers courses in seven subject fields:

- (1) **Family Life and Child Care:** Home Economics 66A, Child Care and Health; 66B, Nutrition of the Mother and Children; 133, Laboratory in Child Care and Development; 166A, Child Care and Health; 166B,

Nutrition of the Mother and Children; 195, Home and Community Relationships; 196, Counseling and Guidance for Home and Community Life; (Sociology 120, The Family, and Health Education 5, Personal and Family Health, related specifically to Department of Home Economics).

- (2) **Food and Nutrition:** Home Economics 6x, Food Preparation and Serving Techniques; 7, Food and Nutrition; 9A-9B, Food Study; 9c, Food Study; 10, Nutrition and Health of the Family; 102, Experimental Cookery; 103A, Nutrition and Dietetics; 103B, Nutrition and Dietotherapy; 106, Meal Management; 110, Nutrition and Health of the Family; 199, Problems in Home Economics; (Chemistry 101B, Food Chemistry, related specifically to Department of Home Economics).
- (3) **Family Economics and Home Management:** Home Economics 107, Home Management Principles; 108, Consumer-Buying; 130, Home Management Practice; 141, Consumers and the Market; 199, Problems in Home Economics.
- (4) **Housing and House Furnishing:** Home Economics 4, Selection and Care of Household Equipment; (Art 103, Home Planning and Decoration; Industrial Education 174, Household Mechanics, related specifically to Department of Home Economics).
- (5) **Home Economics Education:** Home Economics 125, Demonstration Methods; 199, Problems in Home Economics; Education H 190, Teaching Procedures in Home Economics; Education H 192A, Directed Teaching in Foods and Nutrition; Education H 192B, Directed Teaching in Homemaking; Education H 192C, Directed Teaching in Textiles and Clothing.
- (6) **Textiles and Clothing:** Home Economics 90, Textile Study; 93, Dress Design and Selection; 95, Clothing Construction; 95x, Clothing Construction Techniques; 101, Advanced Clothing Construction; 111, Clothing Economics; 114, Historic Textiles; 121, Tailoring; 122, Children's Clothing; 199, Problems in Home Economics.
- (7) **Institutional Management:** Home Economics 134, Organization and Administration of Institutions; 135, Institutional Buying; 138, Quantity Cookery.

Related Courses.

The following courses in other departments are related specifically to the Department of Home Economics: Art 102, Weaving; Art 103, Home Planning and Decoration; Chemistry 100, Physiological Chemistry; Chemistry 101A, Textile Chemistry; Chemistry 101B, Food Chemistry; Education H 190, Teaching Procedures in Home Economics; Education H 192A,B,C, Directed Teaching; Health Education 5, Personal and Family Health (Home Economics); Industrial Education 147, Audio-Visual-Radio Education; Industrial Education 174, Household Mechanics; Sociology 120, Marriage and the Family. For description of these courses, see the respective departments.

LOWER DIVISION COURSES

- 6x. Food Preparation and Serving Techniques.** (0) I, II. Mrs. WILSON
Directed individual work planned to assist students not meeting the minimum essential requirements in the courses on food preparation and serving, or in the Home Management House.

7. Food and Nutrition. (3) I, II.

Mrs. EDER

The fundamental principles of human nutrition as applied to the promotion and maintenance of health and efficiency in adults and children. Study of the selection and preparation of food; factors of cookery analyses of standard products; especially adapted to cooking for the sick and convalescent. Two lectures; one three-hour laboratory period. Open only to students interested in nursing.

9A-9B. Food Study. (3-3) I, II.

Miss MAJOR

Scientific study of foods and development of skill in the selection, purchase, composition, preparation, and service of food. One lecture and two three-hour laboratories weekly.

9C. Food Study. (3) II.

A liberal education course, designed for nonmajors in the study of underlying principles involved in preparation and serving of various types of foods. It is designed to enable the student to develop good standards of work methods with food products. One lecture. Two two-hour laboratory periods.

10. Nutrition and Health of the Family. (2 or 3) I, II.

Miss BRADLEY

The fundamental principles of human nutrition as applied to the promotion and maintenance of health and efficiency in adults and children through desirable food selection, habits, and health practice; digestion, excretion, and elementary metabolism. Two lectures; one three-hour laboratory period for the prenursing student. Open to noncredential home economics students and to nonmajors.

66A. Child Care and Health. (2) I, II.

Lectures, discussion, and field work dealing with the nutritional needs of the preschool and school-age child. Emphasis on positive food and health habits. Methods of judging good and poor nutrition of children. Causes, effects, and prevention of malnutrition. Observations in the nursery school, preschool and well-baby clinics.

66B. Nutrition of the Mother and Children. (2) II.

Prerequisite: courses 66A, 103A.

Scientific feeding of the pregnant and nursing mother, of infants, and of children through the growth periods. Study of recent research in this field. Case problems in dietary studies.

90. Textile Study. (2) I, II.

Textile fibers and the fabrics made from them; historical background, production, and manufacture; understanding and evaluation of new fibers, new fabrics, and new finishes. Artistic and economic considerations in selection and purchase of materials for clothing and household furnishings.

93. Dress Design and Selection. (2) I, II.

Mrs. MEREDITH

Application of color and design to the personality and the wardrobe. Wardrobe analysis, emphasizing the use of basic garments with various suitable accessories. Grooming as applied to person and clothing. Art 1 is recommended. One lecture; one three-hour laboratory period.

95. Clothing Construction. (3) I, II.

Mrs. MEREDITH

Prerequisite: courses 90 and 93.

Problems in clothing construction based upon student's need, interest, and ability; study of ready-made garments with instruction on the refitting or remaking of such garments. Student's need is determined by the study of color and of clothing budgets as given in course 93. One lecture; two three-hour laboratory periods.

UPPER DIVISION COURSES

101. Advanced Clothing Construction. (2) I, II.

Prerequisite: course 95.

Selection and manipulation of fabrics. Construction of garments in wool and silk, emphasizing fundamental principles of good techniques. Two three-hour laboratory periods.

102. Experimental Cookery. (2) II.

Miss MAJOR

Prerequisite: course 9A-9B, Chemistry 10A, 100.

Application of experimental methods to problems involved in the preparation of foods in which variables such as ingredients, proportions, and technique may affect the quality. A study of scientific principles and approved practices is made in interpreting results. One lecture; one three-hour laboratory period.

103A. Nutrition and Dietetics. (3) I, II.

Miss BRADLEY

Prerequisite: course 2; Chemistry 10A, 100.

The principles of normal human nutrition as modified by age, sex, and occupation. A study of basal metabolism and of the metabolism of all the food groups. Calculation and preparation of diets to meet the normal needs of individuals and groups. Cost dietaries. Construction and use of visual aids for the teaching of nutrition. Two lectures; one three-hour laboratory period.

103B. Nutrition and Dietotherapy. (3) I, II.

Miss BRADLEY

Prerequisite: course 103A.

Abnormal nutrition; dietary treatment of such diseases as diabetes, nephritis, gastrointestinal disorders, etc. Case problems include urinalyses and their interpretation in reference to the diet; basal metabolism tests. A survey of research work being done. Critical analyses of articles and radio programs in the field of nutrition. Two lectures; one three-hour laboratory period.

106. Meal Management. (2) I, II.

Mrs. WILSON

Prerequisite: course 9B.

The planning, preparation, and service of meals, with problems in types, costs, equipment, management, and guest functions. One lecture; one three-hour laboratory period.

107. Home Management Principles. (2) I, II.

Miss BIESTER

Prerequisite: Economics 2.

A correlation of the use of money, time, and energy in programs of family living. Lectures, field work, special group and individual problems. Two lecture periods.

108. **Consumer-Buying.** (2) I, II. Miss BIESTER
A nontechnical discussion of standards for selection of consumer goods; evaluation of agencies aiding and protecting the consumer; methods of improving the purchasing ability of the consumer under existing market conditions. Not accepted for credit toward the major.
109. **Recent Findings in Nutrition.** (2) Yr. _____
Prerequisite: course 103A or its equivalent.
Designed for the professional person interested in the recent progress made in the nutrition field. The course includes reports, reviews, and discussions of scientific literature. Special attention is given to recent findings of carbohydrate, protein, and fat metabolism; the vitamins, the minerals; diet and its relation to disease; and the food fads or fallacies.
110. **Nutrition and Health of the Family.** (2 or 3) I, II. Miss BRADLEY
The fundamental principles of human nutrition as applied to the promotion and maintenance of health and efficiency in adults and children through desirable food selection, habits, and health practice; digestion, excretion, and elementary metabolism. Open only to students whose major is home economics.
111. **Clothing Economics.** (2) II. _____
Economic aspects of the production and distribution of textiles and ready-to-wear clothing which directly or indirectly affect the consumer. Buying points and evaluation of buying guides. Individual and family clothing budgets. Open to any student with senior standing.
114. **Historic Textiles.** (2) I, II. _____
Prerequisite: course 111.
Development of textiles from a historical viewpoint. Influence of historic textiles on contemporary designs.
115. **Clothing in the Commercial Field.** (3) I. _____
Prerequisite: courses 101, 111.
Fashion merchandising, store organization, and salesmanship.
121. **Tailoring.** (2) II. _____
Prerequisite: courses 95, 101.
Problems are chosen with the idea of developing technique. Emphasis is placed on construction and design, as well as on the study of fabrics suitable for tailored garments. One lecture; one three-hour laboratory period.
122. **Children's Clothing.** (2) I. _____
Prerequisite: course 95.
The problems involved in the selecting, planning, and making of children's clothing. Emphasis on the relation of design to self-help. Garments are designed and made for children who can be studied and fitted in the laboratory. Two three-hour laboratory periods.
125. **Demonstration Methods.** (2) II. Miss STEARNS
Prerequisite: junior standing.
Practical experience is given each student in the selection, in the organization, and in the presentation techniques of recommended educational practices by demonstration methods. Students will utilize project materials assembled in other courses. Opportunities to observe professional demonstrations. One lecture; two laboratory periods.

- 130. Home Management Practice.** (2) I, II. Miss STEARNS
Prerequisite: courses 4, 106, 103A, 107.
Groups of students organized as a family group live in the Home Management House and apply their training in home economics to the solution of different housekeeping and homemaking problems as they arise. Food preparation and serving, housekeeping, household finance, hospitality, and group relationships.
- 133. Laboratory in Child Care and Development.** (2) I, II. ———
Prerequisite: course 66A.
Laboratory supplement to Home Economics 66A, conducted at the nursery school. One lecture and three hours to be arranged one day a week.
- 134. Organization and Administration of Institutions.** (2) I, II. Miss SPIKE
Prerequisite: courses 9A, 9B, 103A, and 106.
The organization and administration of food service in various types of institutions. Emphasis on methods of administration, personnel management, purchasing of food and supplies, records and accounts. Selection and arrangement of equipment for schools, hospitals, and commercial and civic institutions. One lecture; one three-hour laboratory.
- 135. Institutional Buying.** (2) I, II. Miss SPIKE
Prerequisite: courses 9A, 9B, 106, and 103A.
Institutional marketing, with emphasis upon marketing for school lunch programs. Production and distribution of food commodities, marketing costs, factors influencing prices, marketing of special foods such as eggs, fruits, meats, and vegetables. One lecture; one three-hour laboratory.
- 138. Quantity Cookery.** (2) I, II. Miss SPIKE
Prerequisite: courses 9A, 9B, 106, and 103A.
Application of the principles of cookery to large-quantity preparation of food in the College cafeteria; standardization of formulae, calculation of costs, care and operation of equipment. Planning menus for school lunchrooms, hospitals, and commercial cafeterias. Two three-hour laboratory periods.
- 141. Consumers and the Market.** (2) I. Miss BIESTER
Prerequisite: Economics 2, and senior standing.
Consideration of marketing functions and structure from the standpoint of the consumer; problems met by the consumer in making intelligent selection of goods under existing market conditions; evaluation of agencies aiding and protecting consumers.
- 166A. Child Care and Health.** (2) I, II. Miss BRADLEY
Lectures, discussion, and field work dealing with the nutritional needs of the preschool and school-age child. Emphasis on positive food and health habits. Methods of judging good and poor nutrition of children. Causes, effects, and prevention of malnutrition. Observations in the nursery school, preschool and well-baby clinics. Same as course 66A, but for transfers with junior standing.
- 166B. Nutrition of the Mother and Children.** (2) II. Miss BRADLEY
Prerequisite: courses 66A, 103A.
Scientific feeding of the pregnant and nursing mother, of infants, and of children through the growth periods. Study of recent research in this field. Case problems in dietary studies. Same as course 66B, but for transfers with junior standing.

- 195. Home and Community Relationships.** (2 or 3) I. Miss BIESTER
Prerequisite: Senior standing, permission of instructor, and Home Economics 190.
Laboratory experience in the utilization of the practices of home economics in youth and adult organizations. One one-hour conference, three six-hour periods of field work.
- 196. Counseling and Guidance for Home and Community Life.** (2 or 3) II. Miss BIESTER
Prerequisite: Senior standing and permission of instructor.
Laboratory and discussion on the fundamental principles and methods which may be used in understanding normal individuals and the contributions which the home and community leaders may make toward the development of citizenship of youth. Two one-hour discussions; one three-hour period of field work.
- 199. Problems in Home Economics.** (1-3) I, II. The STAFF
Individual problems in various phases of home economics.
Permission of staff.

The following courses in other departments are related specifically to the Department of Home Economics:

Art 102, 103; Chemistry 100, 101A-101B; Education H 190, H 192; Health Education 5 (H.E.); Industrial Education 174; Sociology 120.
For description of these courses, see the respective departments.

INDUSTRIAL ARTS

- JAMES R. BELL, B.S., Assistant Professor of Industrial Arts.
RICHARD W. BOADEN, M.S., Instructor in Industrial Arts.
THEODORE S. ELLENWOOD, A.B., Instructor in Industrial Arts.
EMANUEL E. ERICSON, M.A., Professor of Industrial Arts.
FRED L. GRIFFIN, A.B., Assistant Professor of Industrial Arts.
JOHN M. GROEBLI, A.B., Lecturer in Industrial Arts.
CLYDE KEENER, A.B., Instructor in Industrial Arts.
FLORENCE W. LYANS, M.A., Assistant Professor of Industrial Arts.
ROBERT A. MCCOY, M.Ed., Instructor in Industrial Arts.
HAROLD J. MILLER, M.S., Assistant Professor of Industrial Arts.
LYNNE C. MONROE, Ed.D., Associate Professor of Industrial Arts.
RALPH K. NAIR, M.S., Assistant Professor of Industrial Arts.
JOHN T. PORTER, A.B., Instructor in Industrial Arts.
JOSEPH J. SAYOVITZ, M.S., Instructor in Industrial Arts.
ARTHUR O. SCHRICKER, M.A., Instructor in Industrial Arts.
* KERMIT A. SEEFELD, M.A., Assistant Professor of Industrial Arts.
WINSOR SOULE, B.S., Lecturer in Industrial Arts.
ROY L. SOULES, M.S., Professor of Industrial Arts.
LOUIE S. TAYLOR, M.A., Assistant Professor of Industrial Arts.
SCHURER O. WERNER, M.A., Associate Professor of Industrial Arts.

The Department of Industrial Arts includes the fields of Industrial Arts, Graphic Arts, and Applied Horticulture.

General Requirements. Students with a major in industrial arts who wish to work toward a bachelor's degree must satisfy general requirements as listed on page 49.

Requirements for the Major. Students working toward a degree, with a major in industrial arts, are required to complete the following courses in the department:

	Units
Industrial Arts 11. Hand Woodwork and Wood Turning . . .	3
Industrial Arts 20. Metalworking Fundamentals	2 or 3
Industrial Arts 50. Electrical Construction	3
Graphic Arts 1. Freehand Drawing and Sketching	2
† Graphic Arts 2. Introduction to Mechanical Drafting	2
Graphic Arts 5. Industrial Drafting	3
Industrial Arts 103. Survey of Occupations	2

Plus additional coördinated courses in industrial arts, graphic arts, or applied horticulture, to make a total minimum of 40 semester units. The selection of these courses must be approved by the Chairman of the Department or his representative.

* Absent on leave, 1948–1949.
† One year of drafting in senior high school may be substituted for this requirement.

Requirements for the Teaching Credential in Industrial Arts. Requirements for the special secondary teaching credential in industrial arts include:

	Units
Industrial Arts 11. Hand Woodwork and Wood Turning...	3
Industrial Arts 20. Metalworking Fundamentals	2 or 3
Industrial Arts 30. Fundamentals of Transportation Machinery	3
Industrial Arts 50. Electrical Construction	3
Graphic Arts 5. Industrial Drafting	3

Plus additional coördinated courses in industrial arts, graphic arts, or applied horticulture, to make a total of 40 semester units taken under the approval of the Chairman of the Department. In addition, the following courses must be completed.

Education 57. Introduction to the Study of Education.....	3
Education 147. Audio-Visual Aids in Industrial Arts or Industrial Arts 184, Audio-Visual Aids in Industrial Arts.	2
Education 164. Educational and Vocational Guidance.....	2 or 3
Education 170. Secondary Education	2
Education I 190A. Teaching Procedures in Industrial Arts..	2
Education I 190B. Content and Materials in Industrial Arts.	2
Education I 190c. Curriculum Development in Industrial Arts	2
Education I 192A. Directed Teaching	3
Education I 192B. Directed Teaching	3
Psychology 110. Educational Psychology.....	3

In order to qualify for recommendation by the department for the teaching credential, the candidate must pass the stipulated speech test or take Speech 11; complete proficiency tests before being assigned to directed teaching; and have an average scholarship grade of C or higher in all technical courses completed. The applicant for the credential must also pass the special physical examination.

Courses in the Department of Industrial Arts may be selected by students in other departments according to their needs and interests, provided the prerequisites for such courses are satisfied.

Requirements for the Minors. Not less than 18 semester units of work are required for a minor, 6 units of which must be in upper division courses. The following minors are offered:

- | | |
|------------------------------|--|
| 1. Aeronautics | 7. Industrial Arts for Elementary Grades |
| 2. Applied Horticulture | 8. Mechanical Drafting |
| 3. Automotive Work | 9. Photography |
| 4. Electrical and Radio Work | 10. Printing |
| 5. General Metal Work | 11. Woodwork |
| 6. Industrial Arts Crafts | |

Industrial Arts

LOWER DIVISION COURSES

4A-4B. Elementary Machine Shop. (3-3) Yr. Mr. SCHRICKER
The fundamental operations in the machine shop, care and use of hand tools, layout work, benchwork, simple lathe turning, screw thread-cutting, and taper work.

- 11. Hand Woodwork and Wood Turning.** (3) I, II. Mr. BOADEN, Mr. ELLENWOOD
Practice in the processes of bench woodwork, in the operation of the wood-turning lathe, and use and care of hand tools, etc.
- 12. Machine Woodworking and Cabinet Construction.** (3) I, II. Mr. GRIFFIN
Prerequisite: course 11, Graphic Arts 5.
The training in operation and upkeep of woodworking machinery in the construction of various types of cabinetwork, casework, and furniture.
- 16. Wood Turning.** (1 or 2) II. Mr. GRIFFIN
Spindle turning, face plate and chuck turning, and spiral work.
- 20. Metalworking—Fundamentals.** (2 or 3) I, II. Mr. TAYLOR, Mr. GROEBLI
A basic laboratory course offering fundamental theory and practice in metalworking processes and tool operations as used in modern industry.
- 21. Forging and Welding.** (2) I, II. Mr. TAYLOR
The principles and practices of forging, testing, and heat-treatment of steels, oxy-acetylene: AC and DC electric arc welding and their practical application to industry.
- 30. Fundamentals of Transportation Machinery.** (3) I, II. Mr. KEENER
An introduction to the nature and construction of transportation equipment used in modern society. Field trips are included.
- 31. Automotive Maintenance and Operation.** (3) II. Mr. KEENER
Economics of selection, operation, and maintenance of the automobile.
- 32. Fundamentals of Automotive Repair.** (3) I. Mr. KEENER
Prerequisite: course 20 or equivalent.
Study of the construction and maintenance of the automobile, with practice on laboratory equipment and live cars.
- 34A–34B. Internal Combustion Engines.** (3–3) Yr. Mr. KEENER
The internal combustion engine as used in the airplane, automobile, tractor, and in stationary work; practice on laboratory equipment.
- 41. Orientation Course in Aeronautics.** (3) I, II. Mr. BELL
Principles upon which the airplane is built and operated; the terminology of the mechanical phases of airplane construction; the problems of commercial aviation and its possibilities.
- 42A–42B. Airplane Construction and Repair.** (3–2) Yr. Mr. BELL
Elements of aircraft design and construction including the use of wood, fabric, metal alloys, and finishing agents such as cellulose dopes. Work on aircraft, repair, rebuilding, and refinishing in accordance with legal requirements.
- 43A–43B. Airplane Engines.** (3–2) Yr. Mr. BELL
Basic principles of heat and power as used in various types of modern airplane engines with accompanying instruction in overhauling, timing, trouble shooting, charts, records, and test-stand operation in accordance with legal requirements.

- 50. Electrical Construction.** (3) I. Mr. SAYOVITZ
Prerequisite: Physics 19A.
Electricity and magnetism, Ohm's law, power formulas, series and parallel circuits, batteries, measuring instruments, motors, generators, and transformers.
- 61. Basic Radio.** (3) I, II. Mr. BELL
Electrical phenomena as applied to radio circuits and equipment used in receiving sets.
- 64. Basic Electronics.** (2 or 3) I, II. Mr. SAYOVITZ
Prerequisite: course 50.
Electron flow in conductors, vacuum, and gases applied to modern electrical circuits.
- 72. Upholstery.** (2 or 3) II. The STAFF
Selection and use of fabrics and materials for upholstery work, including actual practice in the simpler craft processes involved in upholstering.
- 90. Technology in Modern Living.** (2 or 3) I, II. The STAFF
An introduction in nontechnical manner, to the most important technological developments affecting industry, transportation, communications, and various other aspects of modern living. Lectures, motion pictures, and limited laboratory experience.
- 92. Appreciation of Architecture.** (2) I, II. Mr. SOULE
Lectures, supported by visual aids, covering history and development of classic and modern architecture and culture patterns in relation to various people and periods. Field trips are included.

UPPER DIVISION COURSES

- 101. Estimating and Buying of Industrial Materials and Equipment.**
(3) I, II. The STAFF
Preparation of specifications, purchase orders, contracts, and bids; estimating and calculating costs of materials.
- 102. Building Estimating.** (2 or 3) I, II. Mr. WERNER
Study of plans and specifications for frame dwelling, materials required, costs, building codes, subcontracting, and utilities.
- 103. Survey of Occupations.** (2) I, II. Mr. NAIR
Occupational distribution and classifications, with emphasis upon requirements and opportunities for each major field. Field trips are included.
- 104A-104B. Advanced Machine-shop Practice.** (3-3) Yr. Mr. SCHRICKER
Prerequisite: course 4A or 4B.
Study and practice in the more exacting production methods and machining processes on lathe, milling machine, shaper, flat and cylindrical grinder, and drilling machines, involving direct application of machine shop theory.
- 105A-105B. Machine Shop and Toolmaking.** (3-3) Yr. Mr. SCHRICKER
Prerequisite: course 104A or 104B.
An advanced course in machine-shop work involving design and construction of tools, jigs, fixtures, dies, and machine parts for practical use.

- 107. Industrial Relations. (3) II.** Mr. NAIR
A comprehensive treatment of the various factors involved in industrial relations; includes policies, trends, procedures, pertinent laws, and accepted practices.
- 108. Methods in Industrial Supervision. (2) I.** The STAFF
The qualifications, techniques, and responsibilities of industrial supervision. The principles of leadership in the functions of directing, controlling, and coordinating the combined efforts of men, machines, and material.
- 111A–111B. Boat Building. (3–3) Yr.** Mr. ELLENWOOD
Prerequisite: course 12.
The fundamentals of boat design and construction. Laboratory work will include designing and building of paddle boards, kayaks, bantam dinghies, centerboard sailboats, and motor boats. 111B covers design and construction of larger yachts, involving steam bending.
- 112. Furniture Construction. (3) I.** Mr. GRIFFIN
Prerequisite: course 12.
The production of domestic furniture. Articles for production are chosen or designed according to ability and ambition of the individual student.
- 113. Furniture Reproduction. (2) I, II.** Mr. ELLENWOOD
Prerequisite: course 12.
Construction of period furniture and reproduction of antiques.
- 114. Advanced Millwork. (3) II.** Mr. GRIFFIN
Prerequisite: course 12.
Practice in the proper use of woodworking machinery for building construction and machine-made furniture; the proper routing and managing of work and the possibilities of each machine; adjustment, care, and upkeep of machines, motors, and other equipment.
- 115. Painting and Woodfinishing. (2) II.** Mr. GRIFFIN, Mr. ELLENWOOD
Prerequisite: course 11 or equivalent.
A study of various types of finishes, with laboratory work in painting, staining, varnishing, enameling, and lacquering. Practice includes bleaching and other modern finishes.
- 116. Wood Carving and Furniture Decoration. (2 or 3) II.** Mr. ELLENWOOD
Prerequisite: course 11.
Decoration of wood surfaces including the use of inlays, transfers, and wood carving. Practice in the use of all these elements as applied to articles made of wood.
- *120. Ornamental Ironwork. (2) II.** Mr. TAYLOR
Prerequisite: courses 20, 21.
The design and construction of ornamental articles of iron, as they apply to buildings, furniture, and decorative household and garden pieces.
- 121. Advanced Welding. (2 or 3) II.** Mr. TAYLOR
Prerequisite: course 21.
Theory and practice in the more advanced phases of oxy-acetylene and electric welding as it applies to cast iron, aluminum, stainless steel, and other metals.

* Not to be given, 1948–1949.

- 124A–124B. Sheet-metal Work.** (2–2) Yr. Mr. TAYLOR
Prerequisite: courses 20 and Graphic Arts 5.
A course involving theoretical and practical aspects of working and using the various sheet metals through laboratory experiences, lectures and classroom discussions.
- 125. Industrial Arts Aircraft Workshop.** (1, 2, or 3) Yr. The STAFF
A combination of investigation, experimentation, and technical processes, with analysis and organization of teaching content for industrial arts aviation offerings in public schools.
- 127A–127B. Art Metalwork.** (2–2) Yr. Mr. TAYLOR
Training in design and construction of ornamental articles of copper, brass, Britannia metal, silver, aluminum, nickel, silver, bronze, and other nonferrous metals.
- 131. Motor Tune-up.** (3) II. Mr. KEENER
Prerequisite: course 32 or equivalent.
Instruction in the use of motor tune-up test equipment, including exhaust analysis and the operation of the electric dynamometer.
- 132A–132B. Advanced Automotive Work.** (3–3) Yr. Mr. KEENER
Prerequisite: course 32.
An advanced course in the study of more intricate phases of automotive maintenance, with emphasis on design and materials.
- 133. Automotive Electrics.** (2 or 3) II. Mr. KEENER
Prerequisite: course 32.
The theory, construction, maintenance, and repair of the electrical devices used in starting, lighting, and ignition of automobiles.
- 145. Workshop in General Industrial Arts.** (3) I. The STAFF
Opportunities for exploration and analysis of the various materials and manufacturing processes as suited to individual needs.
- 145A–145B. Aeronautical Ground School and Aerodynamics.** (2–2) Yr. Mr. BELL
Ground instruction paralleling C.A.A. requirements for commercial pilot's license. Includes aircraft navigation and meteorology.
- *147A–147B. Aerial Navigation.** (2–2) Yr. Mr. BELL
A course for pilots and others interested in developing proficiency in the methods of dead reckoning. Charts, instruments, including magnetic and earth inductor compasses. The elements of celestial navigation are studied and attention is given to modern radio aids.
- 148. Flight Practice.** (1 or 2) I. The STAFF
Cost of flight lessons arranged privately by student.
Flight practice leading to the private pilot's license, given in coöperation with local airport.
- *149A–149B. Aeronautical Meteorology.** (2–2) Yr. The STAFF
The atmosphere, observation, instruments, evaporation, condensation and precipitation, adiabatic changes, stability, wind systems, air masses, fronts at surface and aloft, weather analysis and forecasting, weather maps.

* Not to be given, 1948–1949.

150A. Direct Current Circuits. (3) I.

Mr. SAYOVITZ

Prerequisite: course 50.

Magnetism, resistance and wire sizes. Ohm's Law, series and parallel circuits, power, primary and secondary cells, meters, electromagnetism cells, induced electromagnetic forces, direct current motors and generators, and distribution.

150B. Alternating Current Circuits. (3) II.

Mr. SAYOVITZ

Prerequisite: course 50.

Inductance, capacitance, impedance, power relationships, meters, single phase and polyphase circuits, transformers, alternating current motors and generators, distribution systems, house and power wiring, control circuits and devices, rectifiers.

151. Electric Motors and Motor Winding. (3) II.

Mr. SAYOVITZ

Prerequisite: course 150.

An advanced course in electrical work involving repair of electrical equipment and motor winding, as well as maintenance of household and heavier equipment.

152A-152B. Electrical Laboratory Work. (3-3) Yr.

Mr. SAYOVITZ

Prerequisite: course 151.

Study of electrical appliances and electrical machinery used in home and in industry. Practice in the repair of such appliances and machinery; study of manufacturing. Radio repair and construction may also be included.

155. Industrial Electronics. (3) II.

Mr. SAYOVITZ

Study and application of electronic devices in modern industry.

162A-162B. Radio Construction and Installation. (3-3) Yr.

The STAFF

Prerequisite: course 61.

Theory and practice in the construction of radio sets of various types, in connection with the principles of short-wave radio operation and installation.

167A-167B. Advanced Radio and Television. (3-3) Yr.

The STAFF

Prerequisite: course 61.

Advanced problems in radio and sound work and short-wave communication, including fundamental aspects of television.

170A-170B. Stagecraft and Stage Construction. (3-3) Yr.

The STAFF

Prerequisite: course 11, Graphic Arts 1.

Problems involved in design, construction, and decoration of stage scenery and other accessories. The problems of lighting and sound are given emphasis in 170B.

172A-172B. Industrial Arts Crafts. (2 or 3) Yr.

Mr. NAIR

Reedwork, novelty painting, simple upholstery, woodwork, leathercraft, metal-tooling, ropework, whittling, craft carving, plastics, glass engraving and etching, Indiancraft, and others.

174. Household Mechanics. (2 or 3) II.

Mr. NAIR

Evaluation of design and construction of household appliances and machines, including practical work in maintenance and repair.

175. Sportscraft. (1 or 2) II.

The STAFF

A course offering opportunities for students to design, construct, maintain, and repair sports equipment.

- 178. Model Making.** (2 or 3) II. The STAFF
Prerequisite: course 11.
Study and practice in the field of model making. Opportunities are given to each student to accomplish work according to his ability and special interests.
- 179A-179B. Early Childhood Education Integrated Craftwork.** (2-2) Yr. Mrs. LYANS
A course designed to develop self-expression in integrated handwork in preschool and primary grades. Constructive work in materials as a medium of self-expression will include easel painting, modeling, working with wood, paper, and cardboard, pasting, using crayons, and working with natural and discarded materials.
- 181. Tool and Equipment Maintenance.** (1 or 2) I. The STAFF
Maintenance, reconditioning, repairing, and care of tools, equipment, and mechanical devices.
- 182. Industrial Management and Organization.** (3) I. Mr. NAIR
An analysis of fundamental problems in industrial management. Includes a study of the plant, personnel, the product, managerial controls, and operating procedures.
- 183. General Metal-Shop Organization for Teachers.** (3) II. Mr. TAYLOR
Designed to give advanced students training in organization and management of the general metal shop in junior and senior high schools, and an opportunity to develop teaching aids, projects, project designs, and additional skills in the various fields of metal work. Field trips are included.
- 184. Audio-Visual Aids in Industrial Arts.** (2) II. The STAFF
Study and selection of various types of visual aids for the teaching program in industrial arts in elementary and secondary schools, including practice in the use of projectors and other equipment; experience in the construction of various types of teaching aids.
- 185. Workshop in Teaching Aids.** (2) I, II. The STAFF
Construction of sketches, graphs, charts, models, and mock-ups of teaching aids in industrial arts.
- 186. Industrial Arts in Adult Education.** (2) II. Mr. ERICSON
Organization of course material for adult groups in leisure time; shop-work, and opportunities to gain skill in special phases of work required for such groups.
- 190A. Teaching Procedures in Industrial Arts Education.** (2) I. Mr. ERICSON
Teaching techniques and procedures in industrial arts, organization of teaching materials, available literature in the field, and professional standards for teachers.
- 190B. Content and Materials in Industrial Arts.** (2) II. Mr. ERICSON
Planning shop and laboratory facilities for industrial arts in elementary and secondary schools. Methods of evaluating and purchasing equipment and supplies, and of analyzing course content in light of established objectives.
- 190C. Curriculum Development in Industrial Arts.** (2) II. Mr. MONROE
Prerequisites: Education I 190A and Education I 192A.
Development of the curriculum for industrial arts in elementary and secondary schools through individual planning and laboratory experimentation.

191. Manipulative Work for the Integrated Program in Primary Grades.

(2) I, II.

Mrs. LYANS

Prerequisite, or taken concurrently: Education E1 190.

This course is designed to train teachers in the manipulative work for primary grades; to develop acquaintance and skill in the use of materials used in activity programs. Stress is also laid on sources of materials.

192. Manipulative Work for the Integrated Program in Elementary Grades.

(2) I, II.

Mrs. LYANS

Prerequisite, or taken concurrently: Education E1 190.

Offers elementary teachers the same type of programs as that described under course 191. Manipulative work is carried on in the classroom, with stress on the integration of handwork activities with the regular subject matter in the elementary grades.

192A-192B. Directed Teaching. (3-3) Yr.

Mr. SOULES, Mr. MONROE, Mr. ERICSON

Laboratory work in directed teaching assignments in industrial arts at various grade levels. Specific teaching assignments under supervision, including personal and group conferences and field trips.

193A-193B. Industrial Arts for Elementary Schools. (2-2) Yr.

Mr. McCoy

Manipulative practices which will develop skill in crafts for primary and elementary teachers in their classroom construction work. The course includes work in several kinds of materials including leather, metal, plastics, textiles, and wood.

194. Expressive Activities for Early Childhood. (2) II.

Miss VANDEMAN

Provides experiences with various environmental media in the school of early childhood—nursery, kindergarten, and primary years, including the construction of visual education materials, simple musical instruments, and educational play materials. Closely integrated with Education EC 190B and Education N 190A-190B.

195A. Organization, Objectives, and Supervision of Instruction in Industrial Arts Education. (3) I.

Mr. ERICSON, Mr. SOULES

195B. Problems of Supervision in Industrial Arts Education. (3) II.

Mr. ERICSON, Mr. SOULES

199. Studies in Industrial Arts. (1-6)

The STAFF

Graphic Arts**LOWER DIVISION COURSES****1. Freehand Drawing and Sketching. (2) I, II.**

Mr. GROEBLI

Designed primarily for students in the field of industrial education to enable them to develop skill in expressing ideas in drawing that will illustrate and clarify other school subjects.

2. Introduction to Mechanical Drafting. (2) I, II.

Mr. MILLER

One year of senior high school drafting or equivalent may be substituted for this requirement.

Instruction and practice in lettering and use of mechanical drawing instruments; solution of geometric problems; theory and execution of orthographic projection; and working drawing.

- 3A-3B. Engineering Drawing.** (3-3) I, II. Mr. GROEBLI, Mr. MILLER
Prerequisite: course 2 or equivalent and plane geometry or analytic geometry.
Lettering, orthographic projection, pictorial representation of machines and machine parts, dimensioning, working drawings, and reproduction.
- 4. Architectural Drafting.** (3) II. Mr. WERNER
Prerequisite: course 2 or equivalent.
Principles and practice of drawing as applied to house-planning, furniture representation, and architectural details. Includes lettering and the technique of architectural drafting.
- 5. Industrial Drafting.** (3-3) I, II. Mr. GROEBLI, Mr. MILLER
Prerequisite: course 2 or equivalent.
Theory and practice in practical aspects of machine drawing, furniture production, sheet-metal development, aeronautical drafting, boat design, lofting, electrical drafting, pipe layout. Field trips are included.
- 6. Topographical Drafting.** (2 or 3) I. The STAFF
Prerequisite: course 2 or equivalent.
Sketching and making simple contour maps, color rendering, and elementary problems in planning drainage and irrigation projects.
- 7. Home Planning.** (3) I, II. Mr. WERNER
Prerequisite: course 2 or equivalent.
The common problems involved in planning a house: styles of domestic architecture and the principles of design; home sites, building codes, materials, and costs. Making scaled freehand sketches, as well as conventional drawings of floor plans and elevations. Field trips are included.
- 9. Mechanical Pictorial Drafting.** (2) II. ———
Prerequisite: course 2 or equivalent.
Theory and application of mechanical pictorial representations including perspective, isometric, cabinet, and oblique drafting.
- 70A-70B. Elementary Photography.** (3-3) Yr. Mr. MCCOY
The practice of photography for personal and educational use. Composition, darkroom technique, lighting, portraiture, and picture making in general.
- 80A. Typography.** (3) I. Mr. PORTER
A study of the basic principles of typography, straight-matter composition, simple display jobs; proofing, care of type and materials; platen press-work.
- 80B. Typography.** (3) II. The STAFF
Prerequisite: course 80A.
Conventional and contemporary styles in typography. Problems in job, periodical, and newspaper composition. Copy preparation and proofreading. Miehle vertical and horizontal press operation. Field trips are included.
- 85A-85B. Linotype Operation.** (3-3) Yr. Mr. PORTER
Principles and operation involved in linotype composition.

UPPER DIVISION COURSES

- 101. Advanced Freehand Drawing and Mechanical Perspective. (2) II.** Mr. SEEFELD
 Prerequisite: course 1.
 Study and practice in the following: line technique, shade and shadows, mechanical perspective, blackboard technique, and color, in their application to such products of industry as furniture, machinery, buildings, and craftwork.
- 102A-102B. Architectural Drafting and Design. (2-2) Yr.** Mr. WERNER
 Prerequisite: courses 1, 2, 4 or 7.
 The theory and practice of making plans and specifications for dwellings. Study of historic styles of domestic architecture and application of principles of design. Estimating, building ordinances, and topographical drawing from field notes, and field trips.
- 104. Related Drawing and Shop Sketching. (2 or 3) I.** The STAFF
 Prerequisite: course 2 or equivalent.
 Study and practice in making working drawings, in blueprint reading and shop sketching, and in correlating the work of the drawing room with work done in the shop or on the job.
- 105. Industrial Arts Design. (2 or 3) I.** ———
 Prerequisite: courses 1 and 2 or equivalent.
 The principles of structural design, with emphasis on the design and construction of articles of furniture and other projects for production in school shops. Consideration of the use and effect of color as a factor in design.
- 106A-106B. Advanced Machine Drawing and Design. (3-3) Yr.** ———
 Prerequisite: courses 1 and 2 or equivalent.
 Theory and drafting with application to motion, power transmission, gears and cams; machine and tool design.
- *107A-107B. Aeronautical Drafting. (3-3) Yr.** Mr. MILLER
 Prerequisite: course 5.
 A practical course, applying army and navy standards to the study of factory blueprints of wing profiles, control surfaces, fuselage structures, landing gears, and boat hulls.
- 108. Descriptive Geometry. (3) II.** Mr. MILLER
 Prerequisite: course 2, plane geometry and trigonometry, and Mathematics 3A taken concurrently.
 The applications of the principles of descriptive geometry to the solution of engineering problems.
- *170A-170B. Cinematography. (3-3) Yr.** Mr. MCCOY
 Prerequisite: one year of photography.
 The theory and practice of making motion pictures. Cutting, editing, sound recording, lighting, and composition are studied in their relation to education and entertainment.
- 171A-171B. Occupational Photography. (3-3) I, II.** Mr. MCCOY
 Opportunity for the advanced student to use his skill in producing pictures for advertising and scientific and press reproduction. Photolithography, screen processes, and color printing.

* Not to be given, 1948-1949.

- 172A-172B. Advanced Photography.** (3-3) Yr. Mr. McCoy
Prerequisite: course 70A-70B.
Practice and study in refining the techniques of taking landscape, portraits, still life and other special types of photographs. Special work will be given in color photography.
- 180A-180B. Printing Plant Management.** (3-3) Yr. Mr. PORTER
Prerequisite: courses 80A-80B or equivalent.
Designed to give the student information and practice in the organization and management of all departments of the printing plant, including the requisitioning of stock and equipment, and field trips.
- 181. Printing Estimating and Production.** (3) I, II. Mr. PORTER
Prerequisite: course 180A-180B.
Estimating on all classes of composition, presswork, binding, paper, photo-engravings, and electrotypes. Production problems of the industry; planning, layout, and scheduling of all types of printing.
- 183. Typographical Layouts and Design.** (3) I, II. Mr. PORTER
Prerequisite: courses 80A-80B.
The designing of books, booklets, brochures, and broadsides with regard to their function. Training in making "thumb nails," "roughs," and "comprehensives," incorporating the principles of space break-up, movement balance, type legibility, and pictorial composition.
- 184A-184B. Photolithography.** (3-3) Yr. Mr. PORTER
Prerequisite: course 183.
The fundamentals of lithography, including the mixing and analysis of chemicals; practice in the production and care of albumin and deep-etch plates; offset press operation. Line, half-tone, and color production by the photolithographic process.
- 185. Advanced Presswork.** (3) II. Mr. PORTER
Practice and study in the more complex problems in the pressroom; half-tone make-ready, hair-line register, scoring, die cutting, and embossing; mechanical adjustment of presses. Folding machine operation.
- 199. Studies in Graphic Arts.** (1-6) The STAFF

Applied Horticulture

LOWER DIVISION COURSES

- 4A-4B. School and Home Gardening.** (2-2) Yr. Mr. BOADEN
Offering teachers and amateur gardeners opportunity for study and practice in propagation of garden seeds and plants, classification, treatment, cultivation, and irrigation of soils. Includes planning gardens from the standpoints of form and color.
- 9A-9B. Principles of Horticulture.** (3-3) Yr. Mr. BOADEN
Maintenance, as applied to small gardens and nursery work; planning, cultivating, irrigating, and pruning.
- 14. Plant Identification.** (2 or 3) II. Mr. BOADEN
Collection, identification, and terminology of ornamental and useful plants.

- 19A–19B. **Plant Propagation.** (3–3) Yr. Mr. BOADEN
Experience in lathhouse and greenhouse practice, the starting and growing of flowers from seed, propagation of vegetative cuttings, and budding of plants.
- 24A–24B. **Nursery Practice.** (2–2) Yr. Mr. BOADEN
Prerequisite: course 9.
The propagation of plants in the open ground, and field trips.

UPPER DIVISION COURSES

104. **Garden Design.** (3) II. The STAFF
Prerequisite: course 14 or equivalent.
Theory and practice in executing plans for private gardens and landscape beautification.
109. **Small Garden Planning and Layout.** (2) I, II. Mr. BOADEN
Prerequisite: course 104 or equivalent.
Application of garden plans to full-scale layout.
112. **Field Practice.** (3) I, II. The STAFF
Prerequisite: course 24A or 24B or equivalent.
Advanced course, comprising the more difficult problems of water supply, plant nutrition, and pest control as encountered in open-ground cultures.
- 116A–116B. **Individual Projects.** (3–3) Yr. The STAFF
Projects in this work may be in any of the fields in which previous experience has been had, as selected by the student. The projects will be selected so as to develop individual initiative and responsibility.
- *124. **Garden and Nursery Management.** (3) I, II. Mr. BOADEN
Prerequisite: course 24A or 24B or equivalent.
Experience in managing various phases of horticultural work; keeping records, reporting, business methods; and foremanship training.
199. **Studies in Applied Horticulture.** (1–6) The STAFF

The following courses in other departments are related specifically to the Department of Industrial Arts:

Education 147, Education I 190A, Education I 190B, Education I 190C, Education I 192A, Education I 192B; Mathematics B; Physics 119.

For descriptions of these courses, see respective departments.

* Not to be given, 1948–1949.

MATHEMATICS

JOEL L. BRENNER, Ph.D., Assistant Professor of Mathematics.

LEONARD H. HALL, Ph.D., Instructor of Mathematics.

STANLEY E. RAUCH, Ph.D., Assistant Professor of Mathematics.

LEWIS F. WALTON, Ph.D., Assistant Professor of Mathematics.

General Requirements. Students with a major in the Department of Mathematics who wish to work toward a bachelor's degree must satisfy the general requirements listed on page 49. For the degree of Bachelor of Arts with a major in mathematics, a total of 120 units and 120 honor points is required. Of these 120 units, a minimum of 20 must be selected from the upper division curriculum of the Department of Mathematics. All programs of study must be approved by the Chairman of the Department.

Preparation for the Major. Competence in the following subjects, or their equivalents, is essential for successful upper division study: high school algebra and geometry; trigonometry; Mathematics 1A-1B-1C-1D, or 3A-3B-4A-4B; 8, 12; one year of college physics.

Specific Scholarship and Course Requirements for the Major. A minimum of 20 units of upper division work in mathematics, and an average grade of at least C in all required courses are necessary for the major.

All students majoring in mathematics must take the following courses.

	Units
Mathematics 111. Introduction to Higher Algebra.....	3
Mathematics 118. Advanced Calculus	3
Mathematics 119. Differential Equations	3

To complete the required minimum of 20 units, the student may elect the following courses, according to his interests:

From the field of *applied mathematics* (recommended to students who expect to pursue a career requiring the applications of mathematics, or who wish to do graduate work in this field):

Mathematics 105. Numerical Analysis	3
Mathematics 121. Mathematics for Engineers and Physicists	3
Mathematics 122. Introduction to Complex Functions.....	3
Mathematics 123. Fundamental Concepts of Analysis.....	3
Mathematics 190. Mathematics Seminar	1-4

From the field of *pure mathematics* (recommended to students who plan to do graduate work in mathematics, or who expect to teach mathematics):

Mathematics 108. Theory of Algebraic Equations.....	3
Mathematics 109. Fundamental Concepts of Algebra.....	3
Mathematics 112. Introduction to Higher Geometry.....	3
Mathematics 113. Fundamental Concepts of Geometry.....	3
Mathematics 114. Introduction to Modern Algebra.....	3
Mathematics 123. Fundamental Concepts of Analysis.....	3
Mathematics 190. Mathematics Seminar	1-4

Requirements for the Minor. High school algebra, plane geometry, and trigonometry are required for admission to a minor in mathematics. Mathematics C and D are recommended for students with deficiencies in algebra and trigo-

nometry. By permission of the department, a student with a deficiency in admission requirements may start immediately in the program for a minor in mathematics by taking Mathematics C and D in one semester. Students must maintain an average grade of not less than C in all courses offered as part of the minor in mathematics.

The minimum number of units for a minor in mathematics is 18, at least 6 units of which must be in upper division work.

Preparatory Course

B. Technical Mathematics for Industrial Education. (3) I, II.

The applications of simple mathematics to the problems arising in shop and construction work. The use of formulae, trigonometric functions, tables of logarithms.

Prerequisite to courses in machine shop and automobile work.

LOWER DIVISION COURSES

1A-1B. Mathematical Analysis. (4-4) Yr.

The STAFF

Prerequisite: high school algebra.

An introduction to analytic geometry and calculus, including a careful review of the essentials of high school algebra and trigonometry. This course is recommended for the social science and life science majors.

1C-1D. Mathematical Analysis. (3-3) Yr.

The STAFF

Prerequisite: course 1A-1B.

A continuation of Mathematics 1A-1B into the more advanced topics of analytic geometry, differential and integral calculus.

2. Mathematics of Finance. (3) I, II.

The STAFF

Prerequisite: $1\frac{1}{2}$ years of high school algebra, or approval of the instructor.

A development of theory and applications of simple and compound interest, discount, annuities, stocks, bonds, depreciation, amortization, insurance, pensions.

3A. Analytic Geometry. (3) I, II.

The STAFF

Prerequisite: trigonometry.

Properties of the straight line, circle, conic sections, equations of first and second degree, transformation of coördinates, parametric equations, polar and cylindrical coördinates, introduction to analytic geometry of three dimensions.

3B. Differential Calculus. (3) I, II.

The STAFF

Prerequisite: course 3A.

Continuation of 3A. Concept of variable, function, limit, continuity, derivative, differentiation, application of the derivative.

4A. Integral Calculus. (3) I, II.

The STAFF

Prerequisite: course 3A.

Continuation of 3B. Techniques of integration. Application. Area, volume, length, indeterminate forms.

4B. Integral Calculus. (3) I, II.

The STAFF

Prerequisite: course 4A.

Continuation of 4A. Infinite series, expansion of functions, Taylor series, partial differentiation, multiple integration, differential equations.

- 5A-5B. **Surveying.** (3-3) Yr. The STAFF
 Prerequisite: trigonometry.
 Theory and practice of the use of levels, transits, and plane tables; mapping, contours, time determinations, triangulation.
8. **College Algebra.** (3) I. The STAFF
 Prerequisite: $1\frac{1}{2}$ years of high school algebra, one-half year of trigonometry; or course 1A.
 Binomial theorem, exponential equations, progressions, complex numbers, elementary theory of equations, inequalities, determinants.
12. **Introduction to Probability and Statistics.** (3) I or II. The STAFF
 Prerequisite: course 1B or 3B.
 Introductory topics of probability and statistics for the development of the treatment of experimental data.
- *15. **General Astronomy.** (3) I or II. The STAFF
 Prerequisite: plane trigonometry.
 A survey of the general field of astronomy. Includes the development of spherical trigonometry for astronomical applications.
18. **Fundamentals of Arithmetic.** (3) I, II. Mrs. IRISH
 Prerequisite: sophomore standing. The passing of a qualifying test in arithmetic given at first meeting of class.
 A course concerned with the problems of teaching elementary arithmetic, open only to students in elementary and junior high school education.

UPPER DIVISION COURSES

- *105. **Numerical Analysis.** (3) I. _____
 Prerequisite: courses 1D or 4B, 12.
 Numerical procedures for interpolation, differentiation, integration, solving of differential equations in applied problems, use of the calculating machines.
- *108. **Theory of Algebraic Equations.** (3) I. Mr. WALTON
 Prerequisite: courses 8 and either 4A or 1C.
 Cubic and quartic equations, approximating roots; symmetric functions, introduction to Galois Field Theory.
109. **Fundamental Concepts of Algebra.** (3) I. Mr. WALTON
 Prerequisite: courses 8 and either 4A or 1C.
 Properties of natural numbers, prime factorization, elements of the theory of numbers; rational, real, and complex numbers as extensions of the natural numbers; derivation of some of the rules of algebra from postulates. Useful for prospective teachers.
111. **Introductory Higher Algebra.** (3) II. Mr. WALTON
 Prerequisite: courses 8 and either 4B or 1D.
 Linear algebra, vector spaces, linear dependence, matrix algebra, systems of linear equations, determinants.
- *112. **Introductory Higher Geometry.** (3) I. _____
 Prerequisite: course 108; recommended: course 111.
 Projective properties, homogeneous and projective coördinates, cross ratio, one and two dimensional projective geometry.

* Not to be given, 1948-1949.

***113. Fundamental Concepts of Geometry. (3) II.**

Prerequisites: course 8 and either 4A or 1C.

A study of the foundations of geometry for students planning to teach mathematics. Introduction to non-Euclidean geometry.

***114. Introduction to Modern Algebra. (3) II.**

Mr. WALTON

Prerequisite: course 111; recommended: course 109.

Introduction to the theory of rings, fields and ideals with application to geometry, physics, and logic.

118. Advanced Calculus. (3) I.

The STAFF

Prerequisite: course 1D or 4B.

Mathematical procedures for problems in physical sciences and engineering. Functions of several variables, partial derivatives, line and surface integrals, series expansions, Fourier series.

119. Differential Equations. (3) II.

The STAFF

Prerequisite: course 1D; or 4B concurrently.

Ordinary differential equations, methods of solution, applications to problems in various fields of science.

***122. Introduction to Complex Functions. (3) I.**

Mr. RAUCH

Prerequisite: course 118.

Analytic functions, integration in the complex plane, analytic continuation, conformal mapping. Introduction to applications in the engineering field.

***123. Fundamental Concepts of Analysis. (3) II.**

Mr. RAUCH

Prerequisite: course 118.

A study of the significance of infinite processes including: limits, continuity, differentiation, integration, series. This course is recommended to prospective teachers of mathematics.

124. Mathematics for Engineers and Physicists. (3) I.

Mr. RAUCH

Prerequisite: course 118.

Complex numbers, vectors, divergence, curl, Gauss's theorem, Stokes's theorem; Gamma, Legendre, and Bessel functions.

***190. Mathematics Seminar. (1-4) II.**

The STAFF

Prerequisite: permission of the instructor.

Lectures and discussions concerning the applications of mathematics to various scientific fields, with emphasis on the place of mathematics in the development of science and industry. Important to science students and to prospective teachers.

* Not to be given, 1948-1949.

MILITARY SCIENCE AND TACTICS

RICHARD G. MCKEE, B.S., Colonel, U. S. Army, Professor of Military Science and Tactics.

CHARLES F. MUDGETT, B.S., Lieutenant Colonel, U. S. Army, Associate Professor of Military Science and Tactics.

JAMES D. KIDDER, B.S., Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

Mission. The mission of the Senior Division of ROTC is to produce junior officers who have the qualities and attributes essential to their progress and continued development as officers in a component of the Army of the United States.

Arms, Equipment and Uniforms. The United States furnishes arms, equipment, uniforms, and textbooks for the use of regularly enrolled students in this department. This property remains the property of the United States Government and must be returned at the end of the school year.

Elementary Course. The purpose of this course is to qualify the student as a leader whether in peace or in war, to help prepare him to discharge his duties as a citizen and to awaken in him an appreciation of the obligations of citizenship.

The elementary course is prescribed for all first-year and second-year undergraduate male students who are citizens of the United States, able-bodied, between the ages of fourteen and twenty-two years at the time of admission to the University. A first-year or second-year student claiming exemption because of noncitizenship, physical disability, age, or service in the armed forces of the United States, will present a petition on the prescribed form for such exemption. Pending action on his petition the student will enroll in and enter the course prescribed for his year.

A student who has had previous military training or service will receive such credit toward advanced standing in the ROTC as the Provost of the College and the professor of military science and tactics may jointly determine.

A student who has received training in a junior division ROTC unit, equivalent training at a government recognized school, or senior division ROTC training at another university may be granted advanced elementary course standing, based on the previous ROTC training completed. Satisfactory completion of the junior ROTC program will entitle the student to credit for the first year of senior ROTC. It is essential that each entering student, with previous ROTC training as indicated above, and who desires to receive advance ROTC credit, should, prior to his enrollment, secure from the high school, or other institution concerned, a transcript of his previous ROTC training. This transcript should be presented by the student for proper evaluation at the time he enrolls in Military Science and Tactics.

If a student subject to this requirement, without authority, fails to appear for work in the course, his neglect will be reported, after a reasonable time, to the Registrar, who, with the approval of the Provost, will notify the student that he is dismissed from the University. The Registrar will then inform the dean of the student's college or other officer in charge of the student's program of his dismissal. Upon the recommendation of the professor in charge of the work and with the approval of the Provost, the Registrar is authorized to reinstate the student and will notify the dean of the student's college (or other officer in charge of the student's study list) of such reinstatement.

ELEMENTARY COURSE

1A-1B. Military Science. ($1\frac{1}{2}$ - $1\frac{1}{2}$) Yr.

The STAFF

Two hours of theoretical instruction and one hour of field instruction each week. Instruction and training in the basic theoretical and practical subjects necessary to enable the student to operate as a soldier in the field.

Qualifications for enrollment. Acceptance by the Professor of Military Science and Tactics as a member of the Senior ROTC for those students without previous military training.

2A-2B. Military Science. ($1\frac{1}{2}$ - $1\frac{1}{2}$) Yr.

The STAFF

Prerequisite: course 1A and 1B, previous ROTC or military training equivalent.

Two hours of theoretical instruction and one hour of field instruction each week.

Instruction to the student to continue and preserve the training given in 1A-1B, and to instill a theoretical and practical knowledge of military tactics as applied to the individual and small groups. The practical application of the relation of this instruction to combat is illustrated.

ADVANCED COURSE

The purpose of this course is to produce college-trained junior reserve officers to meet the needs of the Army during the postwar period and to preserve and expand the Reserve Officers' Training Corps organization in anticipation of postwar reserve officer requirements.

The advanced course is offered for regularly enrolled students who are graduates of the elementary course, physically fit, and between the ages of 16 and 26 years at the time of admission to the advanced course. In addition, advanced-course students must have at least two academic years to graduate or a like period to complete all academic work for advanced degree, and must have a minimum Army General Classification Test Score of 110. Advanced-course students receive from the government commutation of subsistence equivalent to the value of the Army ration (about \$24.00 per month), in addition to uniforms, arms, equipment, and textbooks.

102. Six-week Summer Camp. (3)

Advanced-course students are required to attend a course of summer camp training for six weeks during the summer vacation period normally following the student's completion of the first year of the advanced course. The United States furnishes uniforms, equipment, transportation, and subsistence and pays the student while at camp the rate of pay of any Army private (now \$75.00 per month), plus 5 cents per mile to and from camp. Three units of credit are granted for successful completion of this camp.

Formally enrolled members of the advanced course are exempt from registration, induction, training, and service under the Selective Training and Service Act of 1940, as amended.

103A-103B. Advanced Course, Senior ROTC (Infantry). (4-4) Yr.

Prerequisite: courses 1A, 1B, 2A, 2B.

The STAFF

Instruction to continue and preserve the training given in the elementary course and/or service in the armed forces; instruction in leadership and the duties of company grade officers of Infantry.

104A-104B. Advanced Course, Senior ROTC (Infantry). (4-4) Yr.

Prerequisite: course 103A-103B.

The STAFF

Continuation of the instruction given in 103A-103B with a view to qualifying the student for a commission in the Officers' Reserve Corps, United States Army.

UTILIZATION OF GRADUATES OF SCIENTIFIC AND TECHNICAL COURSES

It is not practicable to maintain units of all the many branches at most colleges and universities. However, there will be students in scientific and technical courses whose services will be needed and who will wish to be commissioned in branches not represented by units on their campuses. The War Department will make provisions for such advanced students to attend an ROTC camp of the appropriate branch and will tender such students, if otherwise qualified, a commission in the appropriate branch within quota limitations.

MUSIC

HELEN M. BARNETT, M.A., Associate Professor of Music.

LLOYD BROWNING, B.Mus., Assistant Professor of Music.

WALTER BUCHANAN, Ph.D., Assistant Professor of Music.

VAN A. CHRISTY, Ph.D., Professor of Music.

MAURICE E. FAULKNER, M.A., Associate Professor of Music.

H. KLYNE HEADLEY, M.Mus., Associate Professor of Music.

EDWIN F. JONES, M.Mus., Assistant Professor of Music.

CLAYTON H. WILSON, M.Mus., Assistant Professor of Music.

FRANCES WISHARD, B.Mus., Instructor in Music.

The Major.—The following majors lead to the degree of Bachelor of Arts in 1948–1949. Conference is required with the Chairman of the Department of Music before beginning these majors.

(1) The bachelor's degree without teaching credential. A liberal arts music major recommended for those who wish to pursue a specialized type of work and are not interested in a teaching credential. Three types of curricula are offered: (a) General Liberal Arts, (b) Theory and Composition, and (c) Applied Music.

(2) A major in public school music, leading to a special secondary credential. This credential authorizes the holder to teach all vocal and instrumental music in the elementary and secondary schools of California.

(3) A major in music, leading to a special secondary credential in (a) instrumental music, (b) vocal music, or (c) piano music. This credential authorizes the holder to teach theoretical music, music appreciation, dictation, music reading, and the special branch or branches named in the credential.

(4) A major in music and a major in elementary education. Teaching credentials in these fields authorize the holder to teach vocal and instrumental music in either the elementary or secondary schools, as well as all elementary subjects throughout the eight grades.

(5) A major in music and a major in junior high school education. Teaching credentials in these fields authorize the holder to teach music throughout the elementary and secondary schools, as well as other subjects in grades seven, eight, or nine in any elementary, junior high, or high school.

(6) A major in music and a major in early childhood education. Teaching credentials in these fields authorize the holder to teach music throughout the elementary and secondary schools, as well as other subjects in kindergarten and the first three grades.

Requirements for the Major. Candidates for the bachelor's degree with a major in music must fulfill all the requirements listed on page 49. The average of all grades received in music courses, including directed teaching for those desiring a credential, must not fall below C.

Students should consult the chairman of the department before registering for the major in music. Transfers from other institutions are required to complete at least two semesters' work in the Department of Music.

All students desiring to enroll in any music course (music history and appreciation, music activities excepted) must first pass a standard music test in native capacity and a test in ability to carry a tune. These music tests are scheduled at the beginning of each semester and must be taken at that time.

Students must have completed the following lower division courses or their equivalents in preparation for the major in music: Music 1A, 3A-3B, 30A-30B, and must have demonstrated the ability to sing a simple tune accurately and in pitch.

Students are required to develop performance ability, vocally or instrumentally, and to participate in student recitals. Auditions are held annually, during which the student's performance in the field of his major interest is tested.

All students with a major in music must engage in some music activity throughout the course, either instrumental or vocal.

Master teachers (accredited by the Department of Music) are available for private instrumental and vocal study at a nominal fee.

Directed Teaching. Before a student can register for directed teaching, he must have maintained an average grade of at least C in all work undertaken. At the conclusion of any semester, should his average fall below grade C he may not register for directed teaching until the C average is reestablished. No student may be graduated without at least a C average in directed teaching.

Proficiency Tests in Speech and Statutory Subjects. Students earning teaching credentials in this department must show proof of proficiency in the fundamental school subjects such as arithmetic, reading, language, penmanship, and spelling. Also see the notice of the speech proficiency test on page 54. Students should plan to take all of these tests prior to their entrance to upper division, and at least by the first semester of their junior year. Directed teaching cannot be undertaken until these tests have been passed.

Advanced Credit. Students able to satisfy the requirements of any music course listed in the bulletin, may petition for examinations in such courses. Those who make satisfactory grades will be allowed to substitute electives for a part of the required courses.

Curricula for the Major

The following are four-year programs leading to the bachelor's degree with a teaching credential. Courses may in some instances be varied to meet the needs and interests of students.

Public School Music

LOWER DIVISION		Units
Music 1B-1C. Musicianship		4
Music 2. Orientation and Guidance		1
Music 3C-3D. Harmony		6
Music 6A-B-C-D. Voice		4
Music 13. Keyboard Harmony		2
Music 20A-B-C-D. Instruments		8
Music 30C-D-E-F. Piano		4
and music activities		
UPPER DIVISION		
Music 104A-104B. History of Music		6
Music 106A-106B. Advanced Voice		2
or Music 140A-140B. Advanced Instruments		2
Music 114. Techniques of Radio Broadcasting.....		1
Music 120. Instrumental Conducting		2

	Units
Music 121. Orchestration	2
Music 160. Form and Analysis	2
and music activities	
Education courses for credential: Education 57, 147, 170, ME 190, MS 190, MV 190, MI 190, M 191, M 192, Psychology 110.	

Instrumental Music

LOWER DIVISION

Music 1B-1C. Musicianship	4
Music 2. Orientation and Guidance	1
Music 3C-3D. Harmony	6
Music 6A-6B. Voice	2
Music 13. Keyboard Harmony	2
Music 20A-B-C-D. Instruments	8
Music 30C-D-E-F. Piano	4
Music 40A-40B. Intermediate Instruments	2
and music activities	

UPPER DIVISION

Music 104A-104B. History of Music	6
Music 140A-B-C-D. Advanced Instruments	4
Music 114. Techniques of Radio Broadcasting.....	1
Music 120. Instrumental Conducting	2
Music 121. Orchestration	2
Music 160. Form and Analysis	2
and music activities	

Education courses for credential: Same as listed above for Public School Music.

Piano Music

LOWER DIVISION

Music 1B-1C. Musicianship	4
Music 2. Orientation and Guidance	1
Music 3C-3D. Harmony	6
Music 6A-6B. Voice	2
Music 6C-6D. Voice	2
or 40A-40B. Intermediate Instruments.....	2
Music 13. Keyboard Harmony	2
Music 20A-B-C-D. Instruments (choice of two)	4
Music 30C-D-E-F. Piano	4
and music activities	

UPPER DIVISION

Music 104A-104B. History of Music	6
Music 106A-106B. Advanced Voice	2
or 140A-140B. Advanced Instruments	2
Music 114. Techniques of Radio Broadcasting.....	1
Music 120. Instrumental Conducting	2
Music 121. Orchestration	2
Music 130A-B-C-D. Advanced Piano	4
Music 160. Form and Analysis	2
and music activities	

Education courses for credential: Same as listed above for Public School Music, except that Music 125, Choral Conducting, may be substituted for MI 190 if desired.

Vocal Music

LOWER DIVISION

	Units
Music 1B-1C. Musicianship	4
Music 2. Orientation and Guidance	1
Music 3C-3D. Harmony	6
Music 6A-B-C-D. Voice	4
Music 13. Keyboard Harmony.....	2
Music 20A-B-C-D. Instruments (choice of two)	4
Music 14. Composition	3
Music 30C-D-E-F. Piano	4
and music activities	

UPPER DIVISION

Music 104A-104B. History of Music	6
Music 106A-B-C-D. Advanced Voice	4
Music 114. Techniques of Radio Broadcasting.....	1
Music 125. Choral Conducting	2
Music 160. Form and Analysis	2
and music activities.	

Education courses for credential: Same as listed above for Public School Music, except that MI 190 should be omitted.

LIBERAL ARTS MUSIC MAJORS

These curricula lead to the bachelor's degree without a teaching credential. The major consists of 40 required units in music. Students also may select 9 additional units in music from their electives. Subject matter is adjusted to meet the interest and needs of the student. Courses in education leading to a teaching credential are omitted. A minor in foreign language, English, speech, social science, natural science, or art is recommended.

†(A) General Liberal Arts Music Major. A balanced program in music history, applied music, and theory and composition.

†(B) Theory and Composition. Specialization in theory and composition, with music history and applied music secondary studies. A minimum of 26 units in theory and composition required.

†(C) Applied Music. Specialization in applied music, with music history, and theory and composition secondary studies. A minimum of 23 units in applied music, including at least 14 units credit for private and class lessons in the major field of performance, and a senior recital are required.

Curricula for the Minor

Requirements for the Minor. The requirements for the various minors in the Department of Music are 18 units, of which at least 6 must be in upper division courses within the same field.

Public School Music

Prerequisite: ability to sing a simple song.

† Consult the Chairman of the Department of Music for details of curriculum.

LOWER DIVISION		Units
Music 1A. Musicianship		2
Music 5A. Music for Enjoyment		2
Music 6A-6B. Voice		2
Music 30A-B-C-D. Piano		4

UPPER DIVISION		
Music 124. Methods of Conducting for Elementary Teachers		2
Music activities		4
Education ME 190. Elementary Music Education		2

Early Childhood Education Music

Prerequisites: ability to play simple songs and marches, and to sing in tune.

LOWER DIVISION		
Music 1A. Musicianship		2
Music 5A. Music for Enjoyment.....		2
Music 6A-6B. Voice		2
Music 30A-B-C-D. Piano		4

UPPER DIVISION		
Music 113A-113B. Music for Plays, Festivals and Pageants		2
Music activities		4
Education MEC 190. Music for Early Childhood Education		2

Orchestra and Band Instrument Music

Prerequisite: ability to play a string or wind instrument.

LOWER DIVISION		
Music 1A. Musicianship		2
Music activities		2
6 units chosen from Music 20A-B-C-D. Instruments		6

UPPER DIVISION		
Music 120. Instrumental Conducting		2
Music 140A-140B. Advanced Instruments		2
Instrumental activities		4

Liberal Arts Music

LOWER DIVISION		
Music 1A. Musicianship		2
7 units elected from lower division courses in music.		

UPPER DIVISION		
Nine units elected from upper division courses in music.		

LOWER DIVISION COURSES

- X(ECE). Piano.** (0 or 1) I, II. Miss WISHARD
A credit course for Early Childhood Education majors who are not qualified to meet entrance requirements for Music 30A (ECE). (NOTE.—Credit can be used as an elective, but will not count toward music requirements for the major or minor.) Two class hours.
- 1A. Musicianship I.** (2) I, II. Mr. BUCHANAN
Key signatures. Solfege of major and minor scales and triads. Sight singing in major with movable *do*. Rhythmic and melodic dictation, two measures. Treble, bass, and C clefs. Harmonic dictation involving I, IV, and V₇. Intervals. Two class hours.
- 1B. Musicianship II.** (2) I, II. Mr. BUCHANAN
Continuation of 1A. Singing in minor with *la* as the keynote. All dictation in four measure phrase length. Rhythmic dictation. Melodic dictation in major and minor. Harmonies involving II'₆ and I₄⁶. Two class hours.
- 1C. Musicianship III.** (2) I, II. Mr. BUCHANAN
Continuation of 1A and 1B. Singing by syllable in bass and C clefs. More difficult rhythmic patterns. Secondary seventh chords. Altered chords by syllable. Altered chords with enharmonic changes in spelling. Two class hours.
- *2. Orientation and Guidance in Music.** (1) I. Mr. CHRISTY
Required lower division course for the major.
The function of music in life and education. Guidance and principles for effective study in applied and theoretical music; how to organize daily study schedules; how to develop personality and leadership, and to discover the phase of music performance for which the student is best fitted.
- 3A–3B. Harmony I–II.** (3–3) Yr. Mr. HEADLEY
Prerequisite: courses 1A, 12A, and 30A.
Intervals in scale relation, chord structure; cadences, four-part harmonization of melodies by section and phrase; by-tones, simple treatment of dominant, subdominant, supertonic, submediant, and mediant harmonies. Rhythmic principles governing harmonization. Keyboard practice, creative work.
- 3C–3D. Harmony III–IV.** (3–3) Yr. Mr. HEADLEY
Continuation of 3A–3B. Nonchordal effects, chromatic harmonies, and simple counterpoint. Extensive analysis of music of the masters. Creative work.
- 5A. Music for Enjoyment.** (2) I, II. Mr. WILSON
History and appreciation, designed especially to meet the needs of students desiring an elementary cultural course in music.
- 6A–6B. Voice I–II.** (1–1) I, II. The STAFF
Prerequisite: ability to carry a tune and course 1A.
Principles of voice production, including posture, breath control, vowel formation, resonance, diction, and legato. Ensemble and individual singing of simple songs and exercises in English and Italian. Two class hours.

* Psychology 5 will be substituted in 1948–1949.

6B. Voice for Elementary and Early Childhood Education Teachers. (1) I, II.

Prerequisite: ability to carry a tune and course 1A. Mrs. BARNETT

Continuation of 6A, with somewhat greater emphasis on individual singing and interpretation of songs on the grade-school level. Special study of the child voice. Two class hours.

6C-6D. Voice III-IV. (1-1) I, II.

Mr. CHRISTY

Continuation of 6A-6B. Two class hours.

8A-B-C-D. Men's and Women's Glee Clubs. (1-1-1-1) I, II.

Mr. BUCHANAN, Mrs. BARNETT

A study of the best choral literature. Accompanied and *a cappella* experience. Public appearances and radio programs. Open to all college students, after preliminary examination, upon consent of the instructor. Three laboratory periods.**9A-B-C-D. Orchestra. (1-1-1-1) I, II.**

Mr. JONES, Mr. FAULKNER

The study and performance of the standard orchestral and symphonic music. Public appearances include a formal concert each semester. Open, with the consent of the instructor, to all students who have had experience in playing an orchestral instrument. Three laboratory periods.

10A-B-C-D. Band. (1-1-1-1) I, II.

Mr. FAULKNER, Mr. WILSON

The study and performance of the standard band repertoire. Public appearances at football games, rallies, and concerts. Open, with the consent of the instructor, to all students who have had experience in playing a band instrument. Two class hours.

12A-12B. Counterpoint. (2-2) Yr.

Mr. HEADLEY

12A. Sixteenth-century counterpoint of Lasso, Palestrina, and others.

12B. Study of Bach and Palestrina in preparation for the writing of canons and fugues.

13. Keyboard Harmony. (2) Yr.

Miss WISHARD

Prerequisites: Music 1B and 3B.

14. Composition. (3) II.

Mr. HEADLEY

Prerequisite: Harmony IV.

Arrangement and composition in the longer forms. Emphasis on either vocal or instrumental to meet the needs and interests of students.

18A-B-C-D. A Cappella Choir. (1-1-1-1) I, II.

Mr. CHRISTY

The study and performance of standard classical polyphonic and modern choral and *a cappella* music. Public performances, concert tours, and radio performances. Open, after preliminary tryout, by permission of the instructor, to students who have had choral experience. Three laboratory periods.**20A. Percussion. (2) I.**

Mr. FAULKNER

Technical aspects of the various percussion instruments, with special emphasis upon accuracy of rhythm and elementary drumming. Three laboratory periods.

20B. Brass. (2) I.

Mr. FAULKNER

Technical problems involved in the playing of the brass instruments.

Performing capacity is developed upon one instrument and playing experience is given upon others. One ensemble period is required each week in addition to the classwork. Three laboratory periods.

- 20C. **Woodwinds.** (2) II. Mr. WILSON
Same as 20B, but for woodwind instruments.
- 20D. **Strings.** (2) I, II. Mr. JONES
Same as 20B, but for string instruments.
- 23A-B-C-D. **String Ensemble.** (1-1-1-1) I, II. Mr. JONES
The study and performance of standard compositions and arrangements for larger string ensemble. Open, after examination, to instrumental players of satisfactory technique, proficiency and musical knowledge. Two class hours.
- 26A-B-C-D. **Chamber Music.** (1-1-1-1) I, II. Mr. JONES
The study and performance of standard compositions and arrangements for string trio, quartet, quintet, etc. Open, after examination, to instrumental players of satisfactory technical proficiency and musical knowledge. Two class hours.
- 27A-B-C-D. **Brass Choir.** (1-1-1-1) I, II. Mr. FAULKNER
The study and performance of standard compositions and arrangements for brass ensemble. Open to proficient brass instrumentalists. Three laboratory periods.
- 28A-B-C-D. **Woodwind Ensemble.** (1-1-1-1) I, II. Mr. WILSON
Same as 27A-B-C-D, but for woodwind ensemble. Two class hours.
- 29A-B-C-D. **Small Vocal Ensemble.** (1-1-1-1) I, II. The STAFF
Study and performance of musical literature suited to small groups. Men's Quartet, Women's Double Quartet, and Mixed Madrigal Group. Frequent public appearances and opportunity for radio programs. Two class hours.
- 30A-B-C-D-E-F. **Piano I-II-III-IV-V-VI.** (1-1-1-1-1-1) I, II. Mr. BROWNING, Miss WISHARD
Classwork in piano, stressing the fundamental principles of correct and intelligent playing. Provision for development according to individual needs. Upon completion of Piano IV, students are expected to play, readily and accurately, accompaniments of a grade of difficulty encountered in public school assembly singing. Two class hours.
- 30A-B-C-D(ECE). **Piano I-II-III-IV.** (1-1-1-1) I, II. Miss WISHARD
For Early Childhood Education Majors, with special emphasis on the needs of the teacher.
Admission is by examination. Students in Early Childhood Education who fail to meet the entrance requirements for course 30A (ECE) must immediately enroll in course X(E.C.E.). Two class hours.
- 40A-B-C-D. **Intermediate Instruments.** (1-1-1-1) I, II. The STAFF
For advanced students. Class lessons and individual instruction. Accredited master teachers are available for private study upon the musical instrument at a nominal fee. Two class hours.

UPPER DIVISION COURSES

- 104A-104B. **History of Music.** (3-3) Yr. Mr. WILSON
Tracing the cultural evolution of men from early civilization to the present day, with emphasis upon music, painting, sculpture, architecture, literature, symphonic literature, social and political institutions. Students whose minor is in music meet twice weekly for 2 units credit. Students whose major is in music meet three times weekly for 3 units credit, with emphasis upon symphonic literature for the additional unit.

- 106A-B-C-D. **Advanced Voice.** (1-1-1-1) I, II. Mr. CHRISTY
Continued development of breath control, tone production, and technique. Study of songs in foreign languages. Interpretation of the art song, opera, and the oratorio. Students appear in recital. Two class hours.
- 108A-B-C-D. **Men's and Women's Glee Club.** (1-1-1-1) I, II. Mr. BUCHANAN, Mrs. BARNETT
Continuation of 8A-B-C-D.
- 109A-B-C-D. **Orchestra.** (1-1-1-1) I, II. Mr. JONES, Mr. FAULKNER
Continuation of 9A-B-C-D.
- 110A-B-C-D. **Band.** (1-1-1-1) I, II. Mr. FAULKNER
Continuation of 10A-B-C-D.
- 113A-113B. **Music for Plays, Festivals, and Pageants.** (1-1) Yr. Miss VANDEMAN
Develops skill in guidance of children's creative music experiences, for a wide variety of dramatizations. Original music will be composed for various activities and interests. Class closely integrated with Education 162A-162B. Two class hours.
114. **Techniques of Radio Broadcasting, Recording, and Audio-Visual Aids in Music.** (1) II. Mr. BUCHANAN
Prerequisite: Education 147 or equivalent.
Projects in writing and production of radio scripts for dramatized music performances. Special microphone and recording techniques for large choral and instrumental groups. Motion pictures, projection slides, recordings and audio-visual devices used specifically in music education.
- 118A-B-C-D. **A Cappella Choir.** (1-1-1-1) I, II. Mr. CHRISTY
Continuation of 18A-B-C-D.
120. **Instrumental Conducting.** (2) II. Mr. FAULKNER, Mr. JONES
Prerequisite: course 124 or Education MV 190.
The history of the art of conducting, time-beating, and scorereading. Technique of the baton. Actual experience in conducting. Three class hours.
121. **Orchestration.** (2) I. Mr. FAULKNER, Mr. JONES
Tone, range, technical possibilities, and transposition of all orchestral and band instruments. Arrangements of standard compositions for strings, brass, and woodwinds, and the orchestration of original work.
- 123A-B-C-D. **String Ensemble.** (1-1-1-1) I, II. Mr. JONES
Continuation of 23A-B-C-D.
124. **Methods of Conducting for Elementary Teachers.** (2) I. Mr. CHRISTY
Practice in conducting simple music. Two class hours.
125. **Choral Conducting.** (2) II. Mr. CHRISTY
Prerequisite: course 124 or Education MV 190.
Practical methods in the technique of choral conducting. Standard choruses and songs suitable for use in junior and senior high school are conducted. Two class hours.
- 126A-B-C-D. **Chamber Music.** (1-1-1-1) I, II. Mr. JONES
Continuation of 26A-B-C-D.

- 127A-B-C-D. **Brass Choir.** (1-1-1-1) I, II. Mr. FAULKNER
Continuation of 27A-B-C-D.
- 128A-B-C-D. **Woodwind Ensemble.** (1-1-1-1) I, II. Mr. WILSON
Continuation of 28A-B-C-D.
- 129A-B-C-D. **Small Vocal Ensemble.** (1-1-1-1) I, II. The STAFF
Continuation of 29A-B-C-D.
- 130A-B-C-D. **Advanced Piano.** (1-1-1-1) I, II. Mr. BROWNING
Continuation of 30C-D-E-F, with emphasis on solo playing and accompaniments of a more difficult grade.
- 132A-132B. **Piano Accompanying.** (1-1) Yr. The STAFF
Playing accompaniments under supervision in the public schools or in vocal or instrumental classes at the College. May be counted for credit in music activity, upon approval of the Chairman of the Department of Music. Five laboratory periods.
- 133A-133B. **Piano Ensemble.** (1-1) Yr. Mr. BROWNING
For advanced students. Four- and eight-hand piano compositions and transcriptions by classic, romantic, and modern composers, culminating in a recital each semester. May be counted as a music activity. Two laboratory periods.
- 140A-B-C-D. **Advanced Instruments.** (1-1-1-1) I, II. The STAFF
Continuation of 40A-B-C-D.
160. **Form and Analysis.** (2) II. Miss WISHARD
Prerequisite: course 3A-3B.
Analysis of the simple structural elements and some of the larger forms. Material used is largely from classic and romantic schools.
199. **Special Studies in Music.** (1-3) I, II. The STAFF
Open only to students approved by the department chairman and the faculty members involved.

The following courses in other departments are specifically related to the Department of Music: Education MI 190, MEC 190, ME 190, MS 190, MV 190, M 191, M 192, P 190; Physical Education 54; Physics 16.

PHYSICAL AND HEALTH EDUCATION

MEN

ERNEST N. CARTER, A.B., Instructor in Physical Education.

TERRY H. DEARBORN, A.B., Assistant Professor of Physical Education.

*THEODORE HARDER, M.A., Associate Professor of Physical Education.

WILLIAM M. IRVINE, Assistant in Physical Education.

MAYVILLE S. KELLIHER, M.A., Instructor in Physical Education.

JOSEPH E. LANTAGNE, M.A., Assistant Professor of Physical Education.

LYLE G. REYNOLDS, M.A., Assistant Professor of Physical Education.

STANLEY L. WILLIAMSON, B.S., Associate Professor of Physical Education.

WILTON M. WILTON, M.A., Instructor in Physical Education.

WOMEN

MARIAN H. ANDERSON, A.B., Instructor in Physical Education.

M. JEAN BELLINGER, M.A., Instructor in Physical Education.

WINIFRED W. HODGINS, M.A., Associate Professor of Physical Education.

JEAN L. HODGKINS, M.A., Assistant Professor of Physical Education.

ELIZABETH L. SEHON, M.A., Associate Professor of Physical Education.

GLADYS R. VAN FOSSEN, M.A., Associate Professor of Physical Education.

PATRICIA H. WHITAKER, M.A., Instructor in Physical Education.

Services offered by the Department of Physical and Health Education.

1. A program of physical fitness for all students.
2. Courses in physical and health education emphasizing theory and practice in desirable activities and recreational values.
3. Preparation for students who wish to make a profession of physical education, health education, or recreation.
4. Preparation for teaching the fundamentals of physical education on the preschool, kindergarten, elementary, and secondary levels, and for organizing and administering the program of physical education in these fields.
5. Intramural activities and co-recreational sports events.
6. Intercollegiate athletic competition.

Requirements for all College Students.

1. A medical examination by the College Physician is required of every student enrolled in the College. Students recommended by the College Physician for modified physical activity will enroll for special individual adaptations classes.

2. For graduation, all students are required to obtain a minimum of 2 units in physical education activities.

3. A student more than twenty-four years of age at the time of admission will be excused from physical education, but recreational courses are recommended.

* Absent on leave, 1948-1949.

Requirements for Men. It is recommended that courses 51A–51B and 52A–52B or course 53 be taken each semester of the first and second years for the fulfillment of the requirement for graduation. Courses 60–69, however, may be substituted, although they are not necessarily constructed to meet the all-around need of the student.

Requirements for Women. The activity requirements in the lower division depend upon the student’s major field of study. The following courses are suggested for students whose major is in one of the three fields listed below.

Early Childhood Education: Physical Education 26, sections 14, 17A, 18A and 186.

Elementary Education: Physical Education 26, sections 14, 16A, 18A and 186.

Junior High School: Physical Education 26, sections 2, 5, 16A and 18B.

All other students undertake one semester each of game activity, rhythmic activity, body mechanics, and an elective course.

The Major. Students must take 40 units (of the 120 required for graduation) in physical and health education courses.

Not more than 30 units of upper division courses in physical and health education taken after entering the upper division will be counted toward graduation.

Students with senior standing at the time of admission to the college by transfer from other institutions, must complete 30 units in residence, 18 of which must be in upper division courses, including at least 12 units of physical education.

Special Requirements. Students desiring to specialize in the field of physical education must be physically sound, mentally alert, and have a high degree of neuromuscular coördination. Candidates for the major or minor are required to demonstrate, before entering the upper division, that they possess a fair degree of skill in the various activities included in the lower division activity classes.

Requirements for the Major.

Men. 35 units in physical education and 8 units in health education as follows:

LOWER DIVISION		Units
Health Education 1. Personal Hygiene		2
Health Education 2. Standard First Aid		1
Health Education 3. Family Hygiene		2
Physical Education 26, Sec. 16A, 16B. Elementary and Advanced Folk Dancing		$\frac{1}{2}$
Physical Education 51A, 51B, 52A, 52B. Physical Fitness . . .		2
Physical Education 56. Activities for Gymnasium and Field		2
UPPER DIVISION		
Health Education 101. School Health Education		3
Physical Education 101. Kinesiology		3
Physical Education 102. Individual Program Adaptation . .		3
Physical Education 105. Physiology of Exercise		3
Physical Education 130. Principles of Physical Education . .		3
Physical Education 131. Organization and Administration of Physical Education		3

	Units
Physical Education 140. Community Recreation	3
Physical Education 154. Athletic Injuries and Conditioning	2
Physical Education 170. Technique of Teaching Football ..	1
Physical Education 171. Technique of Teaching Basketball.	1
Physical Education 172. Technique of Teaching Baseball ..	1
Physical Education 173. Technique of Teaching Track	1
Physical Education 174. Technique of Teaching Tennis	1
Physical Education 175. Technique of Teaching Swimming.	1
Physical Education 176. Technique of Teaching Individual Sports	1
or Physical Education 177. Lifesaving and Water Safety	1
Physical Education electives	2
Physical Education activity electives	2

Women. 40 units from the following physical education courses:

LOWER DIVISION

Physical Education 26. Activity Classes	6
Physical Education 28. Rhythmic Adaptation	2
Physical Education 29. Camp Leadership	1
Physical Education 30. Technique of Teaching Individual Sports	3
Physical Education 35. Rhythmic Form and Analysis.....	1

UPPER DIVISION

Physical Education 101. Kinesiology	3
Physical Education 102. Theory of Individual Program Adaptations	3
Physical Education 105. Physiology of Exercise.....	3
Physical Education 130. Principles of Physical Education..	3
Physical Education 131. Administration of Physical Edu- cation	3
Physical Education 132. Technique of Teaching Team Sports	3
Physical Education 138. Physical Education in the Elemen- tary Schools	2
Physical Education 139. Activities for Early Childhood Edu- cation	2
Physical Education 143. Theory and Techniques of Recrea- tion	3
Physical Education 160A. Theory of Dance.....	2
Physical Education 160B. Theory of Dance.....	2
Physical Education 165. Theory of Gymnastics.....	1

Requirements for the Minor in Physical Education.

Men. 20 units as follows:

LOWER DIVISION

Health Education 1. Personal Hygiene	2
Health Education 2. Standard First Aid.....	1
Physical Education 56. Activities for Gymnasium and Field	2

UPPER DIVISION		Units
Physical Education 130. Principles of Physical Education..		3
Physical Education 131. Organization and Administration of Physical Education.....		3
Physical Education 140. Community Recreation		3
Physical Education 154. Athletic Injuries and Conditioning		2
Electives from the following:		4
Physical Education 170. Technique of Teaching Foot- ball	1	
Physical Education 171. Technique of Teaching Bas- ketball	1	
Physical Education 172. Technique of Teaching Base- ball	1	
Physical Education 173. Technique of Track.....	1	
Physical Education 174. Technique of Tennis.....	1	
Physical Education 175. Technique of Swimming....	1	
Physical Education 176. Technique of Individual Sports	1	
Physical Education 177. Lifesaving and Water Safety	1	
Physical Education. Electives	2	
Physical Education. Activity electives	2	

Women. 20 units as follows:

Physical Education 26. Activity Classes	4
Physical Education 28. Rhythmic Adaptation	2
Physical Education 35. Rhythmic Form and Analysis.....	1
Physical Education 30. Technique of Teaching Individual Sports	3
or Physical Education 132. Technique of Teaching Team Sports	3
Physical Education 138. Physical Education in the Elemen- tary Schools	2
or Physical Education 139. Activities for Early Childhood Education	2
Electives in health education.....	2

Requirements for the Minor in Health Education

The following courses for men and women, totaling 20 units, complete a minor in health education:

Health Education 1. Personal Hygiene	2
Health Education 2. Standard First Aid	1
Health Education 3. Hygiene of the Family.....	2
Health Education 101. School Health Education.....	3
Health Education 104. Organization and Administration of School Health Education	2
Electives from the following:	2
Health Education 105. Safety Education	2
Health Education 106. Industrial and Occupational Hygiene	2
Health Education 107. Organization and Procedures of Student Health Service	2

	Units
Zoölogy 40A. Introductory Animal Physiology.....	3
Biology 180. Public Health	3
Health Education 10. Nutrition and Health of the Family	2 or 3

Requirements for the Combination Major in Physical Education and Industrial Education. A combination major in Physical Education and Industrial Education is offered, leading to special secondary teaching credentials in these fields. One additional semester at least must be completed in order to receive the second credential. Details may be obtained from the chairman of either department.

Requirements for the Credential. Students may obtain the bachelor's degree with a major in physical education and the special secondary credential in physical education, or they may obtain the bachelor's degree without the credential. The special secondary credential in physical education entitles the holder to teach this subject in the public schools of California.

Men and women seeking the special secondary credential in physical education are required to complete the following courses in education:

Education 57. Introduction to the Study of Education.....	3
Education 110. Educational Psychology	3
Education 111. Child Growth and Development.....	2
Education 119(P.E.). Measurement in Physical Education	2
Education 147. Audio-Visual-Radio Education	1 or 2
Education P 190. Teaching Procedures in Physical Education	2
Education P 192. Directed Teaching in Physical Education	2-6

In addition they must pass the college proficiency and speech tests. (See page 54.)

Professional Training in Recreation. The California State Department of Education does not at present offer a credential in recreation. Students wishing to prepare for leadership in this field are advised to obtain the bachelor's degree with major in physical education, arranging in conference with the chairman of this department to emphasize recreational courses included in its offerings, and in those of certain other departments of the College.

Courses Open for Both Men and Women

Physical Education 26, sections 2, 3*, 4, 5*, 6*, 12, 16A-16B, 17A-17B; 28, 29, 35, 58, 63, 64, 66, 67, 101, 105, 130, 138, 140, 143, 163, 164*, 166, 167, 177.

Physical Education for Men

LOWER DIVISION COURSES

28. Rhythmic Adaptation. (2) I, II. Miss SEHON
Prerequisite: Course 26, sections 16A, 16B.
Methods of teaching rhythmic material for elementary and secondary schools. The forms discussed and practiced include folk, tap, clog, and social dancing. Lecture and laboratory.

* These courses will be offered whenever facilities are available. Students may be required to pay a fee for use of facilities not available on the campus. Direct payment will be made by the student.

- 29. Camp Leadership.** (1) II. Miss VAN FOSSEN
A survey of the entire field of camping, with emphasis on activities, programs, and leadership in organized camps. (Does not fulfill activity requirement.)
- 30. Technique of Teaching Individual Sports.** (3) II. Miss WHITAKER
Prerequisite: course 26, sections 3, 5.
Sports for secondary schools and colleges; their facilities, organization, skill, teaching procedures, and officiating. (Does not fulfill activity requirement.)
- 35. Rhythmic Form and Analysis.** (1) I. Miss BELLINGER
The fundamentals of rhythmic forms; the use of rhythm as the basic element in activity, and its application to the teaching of physical education. (Does not fulfill activity requirement.)
- 51A-51B and 52A-52B. Physical Fitness.** The STAFF
The prescribed course in physical education, recommended for graduation of all men students, in each semester of the first two years. A basic program of physical exercise, activities, and sports, organized to help students improve their physical development and condition, and to gain useful neuromuscular and recreational skills.
- 51A. Physical Fitness. Freshmen.** ($\frac{1}{2}$) I. Two meetings weekly, gym and field.
- 51B. Physical Fitness. Freshmen.** ($\frac{1}{2}$) II. Two meetings weekly, gym and field.
- 52A. Physical Fitness. Sophomore.** ($\frac{1}{2}$) I. Two meetings weekly, gym and field.
- 52B. Physical Fitness. Sophomore.** ($\frac{1}{2}$) II. Two meetings weekly, gym and field.
- 53. Individual Adaptations.** ($\frac{1}{2}$) I, II. Mr. REYNOLDS
Individually adjusted programs of activities for men recommended for restricted, remedial, or other special programs by the Department of Physical Education or the College Physician. Fulfills the graduation requirement.
Two meetings per week. Gym.
- 56. Activities for Gymnasium and Field.** (2) I. Mr. WILLIAMSON
Instruction and practice in leadership in gymnasium and field activities, including apparatus work, tumbling and stunts, group games, combatives, marching, sports, and contests. Two meetings weekly. Gym and field.
- *58. Elementary Boating and Sailing** ($\frac{1}{2}$) I, II. Mr. DEARBORN
Prerequisite: students must be able swimmers, capable of self-rescue. Instruction and supervised practice in the fundamentals of handling rowboats and small sailing craft. Open to men and to women who have completed lower division requirements. One afternoon a week.
- 60-69. Sports Courses, Elementary.** ($\frac{1}{2}$) The STAFF
Instruction and supervised practice in fundamentals. Two periods per week.
- | | | |
|------------------------|-------------------|-----------------------|
| 60. Gymnastics. I. | †64. Tennis. I. | †67. Fencing. I, II. |
| 61. Cross Country. I. | 65. Swimming. I. | 68. Wrestling. I, II. |
| †63. Badminton. I, II. | †66. Golf. I, II. | 69. Boxing. I. |

* A fee is charged for use of equipment not owned by the College. Direct payment will be made by the student.

† Courses open to both men and women.

- 80-89. Freshman Intercollegiate Sports.** ($\frac{1}{2}$) The STAFF
 Competitive sports open to students eligible to participate in intercollegiate athletics. Five periods per week during the training season.
- | | |
|------------------------|-------------------|
| 80. Football. I. | 83. Track. I, II. |
| 81. Basketball. I, II. | 84. Tennis. II. |
| 82. Baseball. II. | 85. Swimming. II. |

UPPER DIVISION COURSES

- 101. Kinesiology.** (3) I. Mr. KELLIHER, Mrs. HODGINS
 Prerequisite: Physiology 1A, 1B, Zoölogy 35.
 The study and application of physical structure and muscular movements in various physical education activities. Description and application of certain anatomical concepts and physical laws to joint and muscular action.
- 102. Individual Program Adaptations.** (3) II. Mr. REYNOLDS
 Prerequisite: courses 101, 105, Zoölogy 35, 40A-40B.
 Types and significance of the principal divergencies requiring a modified program of physical activity, together with the program adjustments recommended for each.
- 105. Physiology of Exercise.** (3) I. Mr. LANTAGNE
 Prerequisite: Zoölogy 35, Physical Education 101.
 The neuromuscular mechanism and the metabolic, muscular, circulatory, and respiratory responses in physical exercise, and their integration by means of the nervous system.
- 130. Principles of Physical Education.** (3) I. Mr. WILTON
 The nature and history of physical education; its place and contributions in the educational program and in the world of today.
- 131. Organization and Administration of Physical Education in Secondary Schools.** (3) II. Mr. WILLIAMSON
 Prerequisite: course 130.
- 138. Physical Education in the Elementary School.** (2) I, II. Mrs. ANDERSON
 Prerequisite: course 26, sec. 14, 16A, 18A, 18B.
- 140. Community Recreation.** (3) I. Mr. KELLIHER
 Fundamentals of community recreation, its objectives, principles, program, procedure, and administration.
- 141. Club Activities and Scoutcraft.** (3) I. Mr. CARTER, Mr. KELLIHER
 Prerequisite: course 140.
 Organization and administration of boys' clubs and their activities. The Boy Scout organization, its objectives and program, and its place in the education of youth. Participation in the various phases of the Scouting program. Two lectures and one demonstration.
- 143. Theories and Techniques of Recreation.** (3) II. Miss HODGKINS
 The study of theory and techniques of recreational leadership, including organization and administration of programs for schools, playgrounds, and communities.
- 151. Theory and Practice of Officiating.** (1) II. Mr. WILTON
 Prerequisite: varsity squad experience or technique course in each sport.
 Analysis and interpretation of the rules of football, basketball, baseball, and track; procedure in officiating; practice in officiating.

- 154. Athletic Injuries and Conditioning. (2) II.** Mr. WILTON
 Prerequisite: course 105, Health Education 2.
 Methods and procedure in training and conditioning athletes for competition, with emphasis on the prevention and care of athletic injuries. Technique of bandaging, first aid for injuries, physical therapy.

- 160–169. Sports Courses, Advanced. ($\frac{1}{2}$)** The STAFF
 Advanced instruction and practice in fundamentals and strategy, with opportunity for class and intramural competition. Open to qualified students. Two meetings weekly.

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| 160. Gymnastics. I. | †164. Tennis. I. | †167. Fencing. I. |
| 161. Cross Country. I. | 165. Swimming. I. | 168. Wrestling. I. |
| †163. Badminton. II. | †166. Golf. I, II. | 169. Boxing. I. |

- 170–176. Courses in the Technique of Teaching Sports. (1).** The STAFF
 Prerequisite: squad experience in the sport.

Courses in methods, open to students of physical education, as part of their preparation for teaching and coaching. Each course gives consideration to the history and development of the sport; its hazards and its contribution to the physical education program; qualifications for players and teachers; the training, conditioning, and protection of players; the organization, conduct, and management of practice sessions and contests; analysis, demonstration, and practice of the fundamentals of individual and team play; systems of play and methods of teaching and coaching; facilities and equipment; problems of coaching, management, and public relations.

Two lectures, one laboratory per week.

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| 170. Technique of Teaching Football. I. | Mr. WILLIAMSON |
| 171. Technique of Teaching Basketball. I. | Mr. WILTON |
| 172. Technique of Teaching Baseball. II. | _____ |
| 173. Technique of Teaching Track and Field. II. | Mr. CARTER |
| †174. Technique of Teaching Tennis. I. | Mr. DEARBORN |
| †175. Technique of Teaching Swimming. I. | Mr. DEARBORN |
| 176. Technique of Teaching Individual Sports. II. | Mr. KELLIHER |

- †177. Lifesaving and Water Safety. (1) II.** Mr. DEARBORN
 Prerequisite: sound physical condition and ability to pass the specified preliminary swimming test.

Instruction and practice in lifesaving and water safety, including personal safety in swimming and use of small craft, elementary and special forms of rescue, swimming rescue, use of rescue equipment, resuscitation. American Red Cross Senior Certificate awarded upon successful completion of the course. One lecture, two pool periods.

- 180–189. Varsity Intercollegiate Sports. ($\frac{1}{2}$)** The STAFF
 Competitive sports open, by permission of the sports director, to student eligible to participate in intercollegiate athletics. Five periods per week during the training season.

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| 180. Football. I, II. | 184. Tennis. II. | 188. Wrestling. I. |
| 181. Basketball. I, II. | 185. Swimming. II. | 189. Boxing. I. |
| 182. Baseball. II. | 186. Golf. II. | |
| 183. Track. II. | 187. Fencing. II. | |

† Courses open to both men and women.

Courses in Education Department**119(P.E.). Measurement in Physical Education. (2) I.**

Mr. LANTAGNE, Miss VAN FOSSEN

Development of elementary statistical procedures to be used in a testing program in physical education with emphasis on the construction, analysis, interpretation, and evaluation of the various tests available and their application. Consideration given to types and uses of tests in health instruction.

P 190. Teaching Procedures in Physical Education. (2) I, II. Mr. WILTON
Prerequisite: Education 57, 110, 111, 170, and completion of Proficiency Test.

Methods, materials, and procedure of teaching, program planning, and organization in physical education, together with observation of teaching in classroom, gymnasium, and field.

P 192. Directed Teaching in Physical Education. (2 to 6) I, II. Mr. WILTON
Prerequisite: Education P 190.

Supervised experience in teaching physical education on the secondary school level.

Health Education**MEN AND WOMEN****LOWER DIVISION COURSES**

1. Personal Hygiene. (2) I. Mr. DEARBORN, Miss WHITAKER
Factors influencing health, with special attention to personal health problems of heredity and reproduction, nutrition, excretion, exercise, rest, recreation, mental hygiene, and the evaluation of health information.

2. Standard First Aid. (1) I, II. Mr. CARTER
A basic course in first aid, leading to the standard certificate of the American Red Cross.

3. Hygiene of the Family. (2) II. Mr. LANTAGNE
Prerequisite: Health Education 1.
Application of the facts of hygiene to the family group, with study of the physical, mental, and social qualifications and disqualifications for marriage; prenatal and child care; factors influencing the physical and emotional health of the family.

5. (Home Economics.) Personal and Family Health. (2) I, II. Mr. REYNOLDS
Principles and demonstrations in practices for good mental and physical health, designed especially for students in home economics. One lecture and one two-hour laboratory.

UPPER DIVISION COURSES

101. School Health Education. (3) II. Mr. REYNOLDS
Prerequisite: Health Education 1, Home Economics 10, Biology 180, Education 111 or Health Education 3, are recommended.
Objectives, principles, scope, and content of health education for elementary and secondary schools, with study and practice in the selection, use, and evaluation of teaching methods and materials.

- 102. Advanced First Aid. (1) I.** Mr. CARTER
Prerequisite: Red Cross standard first aid certificate.
Advanced course in first aid, emphasizing the competent handling of the more difficult emergencies and problems. This course leads to the Red Cross advanced certificate, and is a prerequisite to 103, Instructor's First Aid.
- 103. Instructor's First Aid. (1) II.** Mr. CARTER
Prerequisite: senior standing; completion or renewal of advanced certificate within preceding year; anticipation of opportunity to teach first aid. A course in methods, required of all lay persons for teaching Red Cross courses in first aid, and especially recommended for those teaching in the fields of health, physical education, and recreation.
- 104. Organization and Administration of the School Health Program. (2) II.** Mr. DEARBORN
Prerequisite: Health Education 101 and Biology 180 are recommended, but not required.
Organization, administration, and supervision of the school health program in elementary and secondary schools.
- 105. Safety Education. (2) I.** Mr. LANTAGNE
Causes and prevention of the principal types of accidents occurring in the home, in school, in recreation, and on the streets and highways.
- 106. Industrial and Occupational Hygiene. (2) I.** Mr. WILTON
Mechanical, physical, and chemical causes of accidents and ill-health in industry and selected occupations, and their prevention; study of programs of health service and environmental control in industrial organization.
- 107. Organization and Procedures of Student Health Service. (2) II.**
Prerequisite: Physical Education 101, 102, 104, 131. Mr. DEARBORN
The organization, procedures, and practices in school health services, including consideration of the purposes, content, and technique of the health examination, and interpretation and follow-up of its findings.
- 110. Health Education for Elementary Schools. (2) I.** Mr. REYNOLDS
Health information needed by the elementary classroom teacher for effective participation in the school health program, and for the protection and promotion of the physical, mental, and social health of students and teachers.

Physical Education for Women

LOWER DIVISION COURSES

- 26. Prescribed Physical Education for Freshmen and Sophomore Women.**
($\frac{1}{2}$) I, II. The STAFF
Classes meet twice weekly. Section assignments are made only by the Department. This course may be elected for credit by juniors and seniors. Students whose physical condition indicates the need of modified activity are assigned to individual physical education classes.

Section 2. Leadership of Social Activities
Section 3A. Archery

Section 3B. Advanced Archery
Section 4. Bowling
Section 5. Recreational Sports

Section 6A. Horseback Riding	Section 14. Creative Rhythmic
Section 6B. Advanced Horseback Riding	Activities for Children
Section 7. Fencing	Section 16A. Elementary Folk Dancing
Section 8. Individual Program Adaptations	Section 16B. Advanced Folk Dancing
Section 9A. Elementary Tennis	Section 17A. Elementary Dance
Section 9B. Advanced Tennis	Section 17B. Advanced Dance
Section 10. Body Mechanics and Relaxation	Section 18A. Elementary Games
Section 12. Elementary Social Dancing	Section 18B. Lead-up Games
	Section 20A. Hockey and Basketball
	Section 20B. Soccer, Speedball and Softball

28. Rhythmic Adaptation. (2) I, II.

Miss SEHON

Prerequisite: course 26, sections 16A, 16B.

Methods of teaching rhythmic material for elementary and secondary schools. The forms discussed and practiced include folk, tap, clog and social dancing. Lecture and laboratory.

29. Camp Leadership. (1) II.

Miss VAN FOSSEN

A survey of the entire field of camping, with emphasis on activities, programs, and leadership in organized camps. (Does not fulfill activity requirement.)

30. Technique of Teaching Individual Sports. (3) II.

Miss WHITAKER

Prerequisite: course 26, sections 3, 5.

Sports for secondary schools and colleges; their facilities, organization, skill, teaching procedures and officiating. (Does not fulfill activity requirement.) Lecture and laboratory.

35. Rhythmic Form and Analysis. (1) I.

Miss BELLINGER

The fundamentals of rhythmic form. The use of rhythm as the basic element in activity, and its application to the teaching of physical education. (Does not fulfill activity requirement.) Lecture and laboratory.

UPPER DIVISION COURSES

101. Kinesiology. (3) I.

Mrs. HODGINS, Mr. KELLIHER

Prerequisite: Physiology 10, Zoölogy 35.

The study and application of physical structure and muscular movements in various physical education activities. Description and application of certain anatomical concepts and physical laws to joint and muscular action. Lectures and laboratory.

102. Theory of Individual Program Adaptation. (3) II.

Mrs. HODGINS

Prerequisite: course 101, Zoölogy 35, 40A, 40B.

Theory and practice in physical examinations; prevention and correction of orthopaedic defects: exercise as an aid to correction of functional disturbances: basic fundamentals and application of massage. Lectures and laboratory.

105. Physiology of Exercise. (3) I.

Mr. LANTAGNE

Prerequisite: Physiology 1A-1B, Zoölogy 35.

The neuromuscular mechanism and the metabolic, muscular, circulatory, and respiratory responses in physical exercise, and their integration by means of the nervous system.

130. **Principles of Physical Education.** (3) I. Mr. WILTON
The nature and history of physical education; its place and contribution in the educational program and in the world of today.
131. **Administration of Physical Education.** (3) I. Miss SEHON
Problems of organization and administration of programs of health and physical education in elementary and secondary schools.
132. **Technique of Teaching Team Sports.** (3) I. Miss HODGKINS
Prerequisite: course 26, sections 20A and 20B.
A study of team sports usually found in schools and colleges with emphasis on organization, facilities, teaching procedure, and officiating. Practice in refereeing. Lectures and laboratory.
138. **Physical Education in the Elementary School.** (2) I, II. Mrs. ANDERSON
Prerequisite: course 26, sections 14, 16A, 18A and 18B.
139. **Activities for Early Childhood Education.** (2) II. Miss SEHON
Prerequisite: course 26, sections 14, 17A, 18A.
The teaching of basic rhythmic coördinations and physical education activities on the early childhood level.
140. **Community Recreation.** (3) I. Mr. HARDER
Fundamentals of community recreation, its objectives, principles, program, procedure, and administration.
143. **Theory and Techniques of Recreation.** (3) II. Miss HODGKINS
The study of theory and techniques of recreational leadership, including organization and administration of programs for schools, playgrounds, and communities.
- 160A-160B. **Theory of Dance.** (2-2) Yr. Miss BELLINGER
Prerequisite: course 26, sections 17A-17B, 35.
Modern dance techniques and teaching procedures. History of the dance and practice in techniques of composition and production. Lecture and laboratory.
165. **Techniques of Teaching Gymnastics.** (1) II. Miss HODGKINS
Marching, gymnastics and stunts. Lecture and laboratory.

Courses in Education Department

- 119 (P.E.). **Measurement in Physical Education.** (2) I.
Miss VAN FOSSEN, Mr. LANTAGNE
Development of elementary statistical procedures to be used in a testing program in physical education with emphasis on the construction, analysis, interpretation, and evaluation of the various tests available and their application. Consideration given to types and uses of tests in health instruction.
- P 190. **Teaching Procedures in Physical Education.** (2) II. Miss SEHON
Prerequisite: Education 57, 110, 111, 170, 131.
Methods, materials, and procedures of teaching, program planning and organization in physical education, together with observation of teaching classroom, gymnasium and field.
- P 192. **Directed Teaching in Physical Education.** (2-6) I, II. Miss HODGKINS
Prerequisite: Education P 190.
Supervised experience in teaching physical education on the secondary school level.

PHYSICAL SCIENCES

- ERNEST L. BICKERDIKE, Ph.D., Associate Professor of Chemistry.
- WILLARD L. MCRARY, Ph.D., Assistant Professor of Chemistry.
- JOHN M. O'GORMAN, Ph.D., Assistant Professor of Chemistry.
- ALLEN E. SENEAR, Ph.D., Instructor in Chemistry.
- HAZEL W. SEVERY, M.A., D.Sci.O., Professor of Chemistry.
- KENNETH M. SIMPSON, Ph.D., Assistant Professor of Physics.
- EARL F. WALKER, M.A., Assistant Professor of Chemistry.
- ROBERT W. WEBB, Ph.D., Associate Professor of Geology.
- HANS WELTIN, Ph.D., Assistant Professor of Physics.
- E. ALLAN WILLIAMS, Ph.D., Assistant Professor of Physics.
- C. DOUGLAS WOODHOUSE, LL.M., Lecturer in Mineralogy.

Physical Sciences

General Requirements. Students with a major in the Department of Physical Sciences who wish to work toward a bachelor's degree must satisfy general requirements as listed on page 49.

A minimum of 19-24 units of upper division work in the major is required. Students must submit their program to the Chairman of the Department for approval.

An average grade of C or better must be maintained in all courses required for a major or minor in physical science and a total of 120 units and 120 honor points for the degree of Bachelor of Arts must be obtained.

Requirements for the Chemistry Major

<i>Preparation for the major:</i>	Units
Physics 2A-2B. General Physics	8
French or German.....	8
Mathematics through calculus.	
<i>The Major. Lower division requirements, 21 units:</i>	
Chemistry 1A-1B. General Chemistry	10
Chemistry 5. Quantitative Analysis	3
Chemistry 8A-8B. Organic Chemistry	6
Physics 2A-2B. General Physics	8
<i>Upper division requirements, 19 units:</i>	
Chemistry 105. Advanced Quantitative Analysis	3
Chemistry 110A-110B. Physical Chemistry	6
10 units from the following:	
Chemistry 103. Theoretical Organic Chemistry	3
Chemistry 104. Advanced Inorganic Chemistry	3
Chemistry 108A-108B. Biochemistry	3-3
Chemistry 112. Chemical Microscopy	2
Chemistry 190. Scientific Literature	2
Chemistry 199. Special Problems in Chemistry.....	1-4

Requirements for the Physical Science Major

<i>Preparation for the major:</i>		Units
Physics 2A–2B. General Physics	8	
French or German	8	
Mathematics 1A–1B. General Mathematics	8	
<i>The Major. Lower division requirements, 19 units.</i>		
Chemistry 1A–1B. General Chemistry	10	
9 units from the following:		
Chemistry 5. Quantitative Analysis	3	
Chemistry 8A–8B. Organic Chemistry	3–3	
Geology 1A–1B. General Geology	3–3	
Geology 5. Elementary Paleontology	3	
Geology 6. Introduction to Invertebrate Paleontology....	3	
Geology 11. Descriptive Meteorology	3	
Mineralogy 1A–1B. Mineralogy	3	
<i>Upper division requirements, 24 units:</i>		
Chemistry 103. Theoretical Organic Chemistry	3	
Chemistry 104. Advanced Inorganic Chemistry	3	
Chemistry 105. Advanced Quantitative Analysis	3	
Chemistry 108A–108B. Biochemistry	3–3	
Chemistry 110A–110B. Physical Chemistry	3–3	
Chemistry 112. Chemical Microscopy	2	
Chemistry 120A–120B. Laboratory Technique for Physical Science	1–1	
Chemistry 190. Scientific Literature	2	
Chemistry 199. Special Problems in Chemistry	1–4	
Physics 105A–105B. Analytic Mechanics	3–3	
Physics 110A–110B. Electricity and Magnetism	3–3	
Physics 130A–130B. Modern Physics	3–3	
Geology 130. Petrology	3	
Geology 131. Seminar in Ores	3	

Requirements for the Physics Major

For the major in physics the following courses are required:

Mathematics through calculus taken in the first two years.	
Chemistry 1A. General Chemistry	5
Chemistry 1B. General Chemistry	5
or Chemistry 110A–110B. Physical Chemistry	6

The Major. Lower division requirements, 12 units.

Physics 1A, 1B, 1D, 1C. General Physics.....	12
or by special permission Physics 2A–2B. General Physics..	8

Upper division requirements, 20 units:

Physics 105A. Analytical Mechanics	3
Physics 110A–110B. Electricity and Magnetism	6
Physics 111A–111B. Electrical Measurements and Electronic Circuits Laboratory	2
Physics 130A–130B. Modern Physics	6
One additional course in one of the main subjects in physics.	

Requirements for the Minors

Physical Sciences offer the following minors: chemistry and physics, and special minors for early childhood education, elementary education, industrial education and music.

Students electing a minor in any one of the fields of science must complete 18 units, a minimum of 8–12 lower division units, and 6–10 upper division units.

Those wishing a junior high school credential and a bachelor's degree in physical sciences must complete 30 units in education. The required courses are: Education 57, 101 or 102, 110, 111, 147, 184, 190, 192, 193; and 2 units in education electives. For other requirements see Education Department.

Scholarship. Student with a major or minor in the department must maintain an average grade of C or higher in all courses offered as part of that major or minor.

Chemistry

LOWER DIVISION COURSES

1A. General Chemistry. (5) I. Mr. MCRARY, Mr. WALKER, Mr. BICKERDIKE
Prerequisite: high school chemistry or Chemistry 2A, grade B or better; high school algebra, grade B or better; or Mathematics 1A.
The principles of chemistry, with emphasis on chemical calculations. For students training for the scientific professions. Three lectures and two three-hour laboratory and quiz periods.

1B. General Chemistry. (5) II. Mr. MCRARY, Mr. WALKER, Mr. BICKERDIKE
Prerequisite: course 1A.
Continuation of course 1A, with applications to the theory and technique of qualitative analysis; periodic systems; structure of matter. Three lectures and two three-hour laboratory and quiz periods.

2A–2B. Introductory Chemistry. (3–3) I, II. Mr. SENEAR, Mr. O'GORMAN
Descriptive chemistry and elementary principles. Open to all students. This course satisfies the requirements of the Applied Arts Division. Two lectures and one three-hour laboratory period.

2C. Introductory Chemistry. (4) I, II. Mr. WALKER
For students whose major is home economics and who have received a grade of C or higher in high school chemistry. Three lectures and one three-hour laboratory period.

5. Quantitative Analysis. (3) I. Mr. WALKER
Prerequisite: courses 1A–1B; Mathematics 1A.
Methods of quantitative analysis of acids, bases, salts, alloys, and minerals. Principles and technique of analyses. One lecture and two three-hour laboratory periods.

8A–8B. Organic Chemistry. (3–3) Yr. Mr. SENEAR
Prerequisite: courses 1A–1B or 2A–2B.
The carbon compounds comprising the aliphatic, aromatic, and heterocyclic series. The laboratory work consists of the preparation and study of the properties of typical members of each series. Primarily for majors in physical and biological sciences. Two lectures and one three-hour laboratory.

- 10A-10B. Organic Chemistry. (3-3) Yr.** Miss SEVERY
Prerequisite: courses 1A-1B, 2A-2B, or 2C.
The carbon compounds comprising the aliphatic, aromatic, and heterocyclic series with special emphasis on fats, carbohydrates, proteins, drugs, and dyes. Two lectures and one three-hour laboratory period. For students whose major is in a field other than chemistry.

UPPER DIVISION COURSES

- 100. Physiological Chemistry. (3) II.** Miss SEVERY
Prerequisite: courses 1A-1B, 2A-2B, or 2C, and 10A.
The chemical composition and action of the tissues and secretions of the human body, the digestion of foods and the elimination of waste products. Two lectures and one three-hour laboratory period.
- 101A. Textile Chemistry. (2) I.** Miss SEVERY
Prerequisite: courses 1A-1B, 2A-2B, or 2C, and 10A.
Physical and chemical structures, compositions, and testing of textile fibers; testing of water, soaps, bleaches; study of dyes and dyeing. One lecture and one three-hour laboratory period.
- 101B. Food Chemistry. (2) II.** Miss SEVERY
Prerequisite: courses 1A-1B, 2A-2B, or 2C, 8A or 10A.
Determination of the composition of food products and detection of food preservatives and adulterants; study of the pure food laws. One lecture and one three-hour laboratory period.
- 103. Theoretical Organic Chemistry. (3) I.** Mr. O'GORMAN, Mr. SENEAR
Prerequisite: course 8A-8B.
The mechanisms of organic reactions, and the relationship of molecular structure to the physical and chemical properties of organic compounds. Three lectures.
- 104. Advanced Inorganic Chemistry. (3) II.** Mr. BICKERDIKE
Prerequisite: courses 5, 105.
Selected topics in inorganic chemistry. Three lectures.
- 105. Advanced Quantitative Analysis. (3) II.** Mr. WALKER
Continuation of course 5. Problems in oxidimetry and electrolytic deposition. One lecture and two three-hour laboratory periods.
- 108A-108B. Biochemistry. (3-3) Yr.** Mr. MCRARY
Prerequisite: course 8A-8B (may be taken concurrently).
Composition of animal and plant tissues; physicochemical activities associated with life processes. Two lectures and one three-hour laboratory period.
- 110A-110B. Physical Chemistry. (3-3) Yr.** Mr. O'GORMAN
Prerequisite: courses 1A-1B and 5, Physics 2A-2B, Mathematics 1A-1B.
Fundamental laws and principles of chemistry. Includes solutions, osmosis, colloids, thermodynamics, equilibrium, conductance, electrolysis, and photochemistry. Primarily for students whose major is physical or biological science. Two lectures and one three-hour laboratory.

- 112. Chemical Microscopy.** (2) I. Mr. WALKER
 Prerequisite: course 1A-1B.
 Microscopic methods applied to chemical investigations; examinations of crystalline compounds. Two three-hour laboratory periods.
- 120A-120B. Laboratory Technique for Physical Science.** (1-1) Yr. The STAFF
 Prerequisite: courses 1A-1B, 8A.
 Intended primarily for students interested in teaching science. Practice in setting up equipment for laboratory use and for class demonstration; construction, maintenance, and repair of equipment. Elementary glass working. Three hours laboratory and discussion.
- 140. Industrial Chemistry.** (3) II. Mr. WALKER, Mr. O'GORMAN
 Prerequisite: course 2A.
 Production and use of fuels, lubricants, and materials of fabrication. Laboratory examination of these materials. Three lectures and demonstrations.
- 146. Chemical Technology.** (3) I. The STAFF
 Prerequisite: courses 1A-1B, 8A.
 Unit processes and operations in the chemical industries. Chemical principles and problems in the manufacture of heavy chemicals, fuels, organics, and metals. Three lectures.
- 190. Scientific Literature.** (2) I, II. The STAFF
 Required for majors in chemistry.
- 199. Special Problems in Chemistry.** (1 to 4) I, II. The STAFF

Geology

LOWER DIVISION COURSES

- 1A. General Geology: Physical.** (3) I. Mr. WEBB
 The earth's features, and the geologic processes governing their origin and development. Three lectures and field trips.
- 1B. General Geology: Historical.** (3) II. Mr. WEBB
 Prerequisite: course 1A.
 Origin of the earth. Evolutionary history of earth as shown by rocks and fossils. Three lectures.
- 4. Physical Science for Elementary School Teachers.** (3) I. Mr. WOODHOUSE
 The origin and history of the earth; earth features and their meaning; common rocks and minerals; elements of weather; applications of mechanics, heat, electricity, magnetism, light, and sound. Three lecture demonstrations and field trips.
- *5. Elementary Paleontology.** (3) I. _____
 Fossils, their nature and meaning. Geographic and geologic distribution of organisms. Evolution. Principles of classification and nomenclature of organisms. Two lectures and one three-hour laboratory. Course 1B is recommended, but not required.

* Not to be given, 1948-1949.

***6. Introduction to Invertebrate Paleontology. (3) II.**

Prerequisite: course 5.

Protozoa and several other phyla of invertebrate animals commonly occurring as fossils. Two lectures and one three-hour laboratory.

11. Descriptive Meteorology. (3) I.

Mr. WOODHOUSE

Elementary survey of the fundamentals of meteorology. Three lectures.

UPPER DIVISION COURSES

100. Synoptic Meteorology. (3) II.

Mr. WOODHOUSE

Prerequisite: course 11.

Theory and practice of weather forecasting and mapping, and its application to aeronautics. Two lectures and one three-hour laboratory period.

130. Petrology. (3) I.

Hand specimens and thin sections of the more common rock types and the rock-forming minerals. An elementary course with emphasis on sight determination and physical tests. Two lectures, one three-hour laboratory, and field trips.

131. Seminar in Ores. (3) II.

Ore-forming processes, modes of occurrence, structure and types of ore bodies, both metallic and nonmetallic.

***199. Special Problems in Geological Sciences. (1 to 4) I, II.**

Mr. WOODHOUSE

Mineralogy

LOWER DIVISION COURSES

1A-1B. Mineralogy. (3) Yr.

Mr. WOODHOUSE

Prerequisite: elementary chemistry.

The more common metallic and nonmetallic minerals, with emphasis on sight determination. Elementary crystallography and blowpipe analysis. Two lectures and one three-hour laboratory.

33A. Gems. (3) I.

Mr. WOODHOUSE

Prerequisite: Mineralogy 33A.

various synthetic gems, identification and study of all types of minerals that have value as gem material. Three lectures.

33B. Gems. (3) II.

Mr. WOODHOUSE

Prerequisite: Mineralogy 33A.

Technique of cutting and polishing common gem materials. Actual collecting of material in the field and processing in the laboratory. One lecture, and two three-hour laboratories.

Physics

LOWER DIVISION COURSES

1A-1B. General Physics. (3-3) Yr.

The STAFF

Prerequisite: trigonometry, high school physics or chemistry, and analytic geometry completed or taken concurrently.

Mechanics and heat. For preengineering and science majors. Two lectures and one three-hour laboratory period.

* Not to be given, 1948-1949.

1D-1C. General Physics. (3-3) Yr.

The STAFF

Prerequisite: course 1A-1B, analytic geometry, differential calculus; for 1C, Integral Calculus. Physics 1D must be taken before 1C.

Sound and light. Electricity and magnetism. Two lectures and one three-hour laboratory period.

2A-2B. General Physics. (4-4) Yr.

The STAFF

Prerequisite: high school trigonometry, physics, or chemistry.

For science majors and premedical students. Mechanics, heat, and sound. Electricity, magnetism, and light. Three lectures and one three-hour laboratory period.

***10. Descriptive Survey of Physics. (3) I, II.**

The STAFF

An introduction to some of the more important phenomena of classical and modern physics with emphasis on atomic, electronic, and radiation physics. Not open to students who have had 1A-1B or 2A-2B. Three lectures and demonstration.

16. Physics of Sound. (3) I, II.

Mr. BICKERDIKE

The principles of sound and their application to music, musical instruments, and speech. Elementary principles of acoustics, public address systems. Especially designed for majors in speech and music. Two lectures and one three-hour laboratory.

19A. Introductory Physics. (3) I.

The STAFF

For students with a major in fields other than science. Mechanics, properties of matter, and heat. Open to all students. Two lectures and one three-hour laboratory period.

19B. Introductory Physics. (3) II.

The STAFF

Prerequisite: 19A.

Electricity, magnetism, light, and sound. Two lectures and one three-hour laboratory period.

UPPER DIVISION COURSES

***105A-105B. Analytic Mechanics. (3) Yr.**

Mr. WILLIAMS

Prerequisite: course 2A-2B or 1A-1B; and 1C-1D taken concurrently; mathematics through calculus.

Dynamics and statics of particles and rigid bodies, theory of vibrations, introduction to the equations of Lagrange and Hamilton.

110A-110B. Electricity and Magnetism. (3-3) Yr.

The STAFF

Prerequisite: course 1A-1B-1C-1D or 2A-2B; mathematics through calculus.

Introduction to the study of electrostatics, magnetostatics, electric currents, circuits, electromagnetic theory, electronics.

111A-111B. Electrical Measurements and Electronic Circuits Laboratory. (1-1) Yr.

The STAFF

Prerequisite: course 110A-110B taken concurrently or previously. Three-hour laboratory period.

* Not to be given, 1948-1949.

- *112. Heat and Introduction to Thermodynamics.** (3) II. The STAFF
Prerequisite: course 2A-2B or 1A-1B; mathematics—integral calculus, or by special permission.
Thermal properties of matter, temperature measurements, radiation, and introduction to thermodynamics.
- *120A-120B. Laboratory Technique for Physical Science.** (1-1) Yr. The STAFF
Prerequisite: course 2A-2B or 1A-1B-1C-1D.
Intended primarily for students interested in teaching science. Practice in setting up equipment for laboratory use and for class demonstration; construction, maintenance, and repair of equipment. Elementary glass working. Three hours laboratory and discussion.
- 130A-130B. Modern Physics.** (3-3) Yr. Mr. SIMPSON
Prerequisite: course 1A-1B-1C-1D or, in special cases, 2A-2B.
A résumé of the theoretical and experimental knowledge of modern physics. Atomic nature of matter and electricity, radiation, photoelectric effect, spectroscopy, X rays, nuclear phenomena, cosmic rays.
- *190. Scientific Literature.** (2) I, II. The STAFF
- 199. Special Problems in Physics.** (1-4) The STAFF

Physical Science

- 1A-1B. Fundamentals of Physical Science.** (3-3) Yr. Mr. SIMPSON
Enrollment limited, entrance by permission of the instructor. Fundamental principles and methods of physics and chemistry. Two lectures and one three-hour laboratory and discussion period.

* Not to be given, 1948-1949.

SOCIAL SCIENCES

- HENRY M. ADAMS, Ph.D., Assistant Professor of History.
MORTIMER ANDRON, Ph.D., Assistant Professor of Economics.
² D. MACKENZIE BROWN, Ph.D., Associate Professor of Political Science.
A. RUSSELL BUCHANAN, Ph.D., Associate Professor of History.
WALTER E. CONRAD, M.A., Instructor in Sociology.
NORMAN E. GABEL, Ph.D., Assistant Professor of Anthropology.
HARRY K. GIRVETZ, Ph.D., Associate Professor of Sociology.
STEPHEN S. GOODSPEED, Ph.D., Instructor in Political Science.
J. FREDERICK HALTERMAN, Ph.D., Professor of Economics.
WILLIAM F. KENNEDY, Ph.D., Assistant Professor of Economics.
GWYNNE NETTLER, Ph.D., Assistant Professor of Sociology.
H. EDWARD NETTLES, Ph.D., Professor of History.

The Majors in Subject Fields in the Social Sciences.

Majors in economics, history, political science, social science, and sociology will be offered in 1948–1949.

Requirements for the Major.

1. Candidates for degrees with a major in a subject field in the social sciences must fulfill the requirements listed on page 49.

2. Foreign Language: At least 12 units in one foreign language, or 16 units in two foreign languages are required of majors.

The first two years of high school work in a foreign language, not duplicated by college courses taken by the student, will together be counted in satisfaction of 4 units of this requirement; the third and fourth years will be counted in satisfaction of 4 units each, but will not reduce the total number of units required for graduation. Only work of grade C or better will be counted.

Majors in economics, sociology, and in social science may substitute for the foreign language at least 14 units of natural science chosen from the following list, including not less than 3 units of college courses with laboratory work. One year of chemistry or physics completed in high school, with a grade not lower than B, will each count as 3 units in satisfaction of the science requirement, but this will not reduce the total number of units required for graduation.

High School Chemistry	
High School Physics	Units
Chemistry 2A–2B	6
Chemistry 8A–8B.....	6
Physics 2A–2B	8
Botany 1A–1B	8
Biology 1	3
Geology 1A–1B	6
Genetics 130	3
Physiology 10	3

² In residence spring semester only, 1948–1949.

	Units
Zoölogy 1A-1B	8
Mineralogy 1A-1B	3
Descriptive Meteorology 11	3
Plant Anatomy 6	3
General Bacteriology 1-4	5

Requirements for the Minor. Minors are available in each of the following subject fields: history, economics, political science, sociology.

Lower Division. Six units in subject field of minor and 6 elective units in other subject fields in the social sciences.

Upper Division. Six units in subject field of the minor. *Upper Division standing of majors from the University of California at Berkeley or Los Angeles.*

Students who transfer to the Santa Barbara campus from the College of Letters and Science of the University of California at Berkeley or at Los Angeles with the requirements completed for upper division standing in the specific majors offered here (economics, history, political science, and sociology) will be accepted as having completed all lower division requirements in those majors in this College.

Prelegal Guidance. Advisers in this department will counsel students who are interested in the study of law and are classified as prelegal.

Junior High School Credential with Major in a Subject Field in the Social Sciences.

This credential may be obtained by completing a major in a subject field in the social sciences, and courses in education required for this credential.

Approval of Program by Adviser. Students whose major or minor is in a subject field in the social sciences must have their programs approved by an adviser in the Department of Social Sciences.

Scholarship. Students with a major or minor in the department must maintain an average grade of not less than C in upper division courses offered as part of the major or minor. Students who do not maintain such an average may be required at any time to withdraw from the major or minor.

Admission to Upper Division Courses. Except by permission of an adviser in the Department of the Social Sciences or of the instructor in the course, only students with upper division standing may enroll in upper division courses in subject fields of the social sciences.

Introductory Courses. Anthropology 1A-1B, History 4A-4B, History 8A-8B, Political Science 1 and 2, Sociology 1 and 2, Economics 2, 6A-6B, 10, 40, and Geography 1A-1B may be taken in either the freshman or the sophomore year.

Economics 1A-1B, History 17A-17B, and History 88, are open to all students above the freshman year.

Anthropology

LOWER DIVISION COURSES

- 1A. General Anthropology. (3) I.** Mr. GABEL
Physical anthropology; human biology; origin and antiquity of man; criteria of race; racial classification; racial theories and problems. Archaeology; prehistoric cultures of man. Two lectures, one quiz section per week.
- 1B. General Anthropology. (3) II.** Mr. GABEL
Nature of culture; survey of human culture types; processes of culture. Two lectures and one quiz section per week.

- 15A. World Ethnology. (3) I.

Mr. GABEL

Ethnology of the Old World; survey of the principal cultures of aboriginal Africa, Eurasia and Oceania.
- 15B. World Ethnology. (3) II.

Mr. GABEL

Ethnology of the New World; survey of the principal cultures of aboriginal North and South America.

UPPER DIVISION COURSES

- 100A. Cultural Anthropology. (3) I.

Mr. GABEL

Prerequisite: Anthropology 1A-1B.
Structure of primitive cultures; social, religious, political and economic institutions among preliterate societies.
- 100B. Cultural Anthropology. (3) II.

Mr. GABEL

Prerequisite: Anthropology 1A-1B.
Theory of primitive culture; analysis and interpretation of cultural processes; cultural data applied to modern social problems.

Economics

The Economics faculty offers two majors; one in economics and the other in business administration. The former is designed for students primarily interested in developing an understanding of the operation of our economy and leads to positions in government or industry as economists, to graduate study in the field of economics, and to general cultural development. The latter is designed for students primarily interested in entering business as a career and focuses attention on the individual firm and its relations to the economy.

Preparation for the Major.

- a. Economics

Required:

	Units
Economics 1A-1B. Principles of Economics	3-3
Economics *10. Economic History	3

Recommended: History 4A-4B, Political Science 1-2, Sociology 1-2, and Speech 11.

Economics 40. Elementary Statistics	3
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- b. Business Administration

Required:

Economics 1A-1B. Principles of Economics	3-3
Economics 6A-6B. Principles of Accounting	3-3
Economics 40. Elementary Statistics	3
Mathematics 2. Mathematics of Finance	3

Recommended: Economics 10, Geography 1A-1B, History 4A-4B, Political Science 1-2, Sociology 1-2, and Speech 11.

The Major:

- a. Economics. Required: 24 upper division units, including:

Economics 100A-100B. Economic Theory 3-3

A maximum of 6 units may be offered toward the major from the following group of courses:

Economics 118. Commercial Law	3
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* Economics 10 is not required for students who attain upper division standing prior to September 15, 1948.

Units

Economics 123. Marketing	3
Economics 133. Investments	3
Economics 134. Corporation Finance	3
Economics 143. Economics of Insurance	3

b. Business Administration. Required: 24 upper division units including:

Economics 100A. Economic Theory	3
Economics 103. Business Cycles	3
Economics 123. Marketing	3
Economics 134. Corporation Finance	3
Economics 150. Labor Economics	3

LOWER DIVISION COURSES

1A-1B. Principles of Economics. (3-3) Yr. Mr. ANDRON

Prerequisite: 1A is prerequisite to 1B. A sophomore course. Not open to freshmen.

The principles of economics and their application to important problems of the economic world. Two lectures, one quiz section per week.

2. Survey of Economics. (3) I, II. Mr. HALTERMAN

Open to freshmen.

The principles and problems of economics; for students taking one semester only of economics.

6A-6B. Principles of Accounting. (3-3) Yr. Mr. HALTERMAN

Prerequisite: 6A is a prerequisite to 6B. Open to freshmen.

The principles and structure of modern accounting practice, elementary theories and problems related to the individual owner, partnership, and corporate type of business organizations. Two lectures and one two-hour laboratory section weekly to be arranged.

10. Economic History. (3) I, II. The STAFF

Development of the modern enterprise or capitalist economy in its North Atlantic setting, with emphasis on institutions and practices.

40. Elementary Statistics. (3) I, II. Mr. KENNEDY

Prerequisite: Two years high school algebra or approval of instructor.

Modern methods of analyzing statistical data. Their gathering and classification with emphasis on analyses and presentation of economic and sociological material. Two lectures and one two-hour laboratory section weekly to be arranged.

UPPER DIVISION COURSES

Prerequisite to all upper division courses: Economics 1A-1B or Economics 2 or an equivalent approved by the instructor.

100A-100B. Economic Theory. (3-3) Yr. Mr. ANDRON

Prerequisite: 100A is prerequisite to 100B. Not open to students taking Economics 109.

Economic theory; emphasis upon its application to practical problems; the principles of value and distribution under competition and monopoly.

101A-101B. History of Economic Doctrine. (3-3) Yr. Mr. HALTERMAN

History of economic doctrine from Aristotle to the present day.

- 103. Business Cycles. (3) II.** Mr. KENNEDY
Prerequisite: Economics 40, 100A.
Theories of the business cycle and the interrelation of the economic processes; the problem of controlling economic instability. It is recommended that this course be taken in the senior year.
- 107. Comparative Economic Systems. (3) I.** Mr. ANDRON
Economic principles and economic systems; socialism, fascism, and capitalism contrasted with regard to making economic decisions, organization of production, mechanism of exchange, banking and investment, distribution of income, status of labor, international trade, and public finance.
- *109. Theory of Enterprise. (3) I.** The STAFF
Economic theory as applied to the problems of the individual business enterprise, with emphasis upon the determination of prices and related costs.
- 113. Economic and Industrial History of the United States. (3) I.** Mr. HALTERMAN
The economic development of the United States from the period of settlement to the present time, with emphasis on conditions since 1865; origin and growth of leading industries; influence of economic conditions on political history.
- 116A-116B. Industrial Organization and Public Policy. (3-3) Yr.** Mr. KENNEDY
Economics of large-scale industry including problems of organization, output, pricing, and public policy on these problems, with special reference to social control of competition, combinations, monopolies, and cartels.
- 118. Commercial Law. (3) II.** The STAFF
Law in relation to business; the essentials of contracts, agency, bailments, security transactions, sales, negotiable instruments, partnerships, and business corporations.
- 123. Marketing. (3) I.** The STAFF
The principal marketing methods, institutions, and practices, with their related problems considered from the viewpoint of the consumer, the middleman, and the manufacturer.
- 130. Public Finance. (3) II.** The STAFF
The principles underlying the raising and spending of public money, with intensive study of the principles, incidence, problems, and economic effects of taxation.
- 133. Investments. (3) II.** The STAFF
A study of investment principles, methods, and institutions, including a consideration of the income, safety, and control features of investment securities.
- 134. Corporation Finance. (3) II.** Mr. ANDRON
Instruments and methods of financing a corporation, and the effect of these upon the corporation and its stockholders.
- 135. Money and Credit. (3) I.** Mr. KENNEDY
Developments and functions of modern credit institutions and of monetary theories.

* Not to be given, 1948-1949.

143. **Economics of Insurance.** (3) I. The STAFF
 An introduction to the underlying principles of insurance followed by a descriptive study of the practices in the more important branches of the insurance business.
150. **Labor Economics.** (3) II. Mr. HALTERMAN
 Factors contributing to American labor problems, and the attempts on the part of those concerned to obtain harmony.
190. **International Trade.** (3) II. The STAFF
 Fundamental factors in international economic relations.
199. **Special Problems in Economics.** (1-3) I, II. The STAFF

Geography

LOWER DIVISION COURSES

- 1A. **Fundamentals of Modern Geography.** (3) I. Mr. CONRAD
 The main features of the physical environment in their relationship to man's life and activities.
- 1B. **Regional and Economic Geography.** (3) II. Mr. CONRAD
 Selected regions, with wide application of the principles of human and economic geography.

History

Preparation for the Major:

Required:

History 4A-4B. Introduction to the History of Western Civilization	Units 3-3
History 17A-17B. Political and Social History of United States	3-3

Recommended:

History 8A-8B, Political Science 1-2, Economics 1A-1B.

The Major: Required: 24 units of upper division work in history. The major must include 6 units in European history and 6 units in American history, the other 12 to be selected in consultation with the adviser.

LOWER DIVISION COURSES

- 4A-4B. **Introduction to the History of Western Civilization.** (3-3) Yr. Mr. ADAMS
 The political, cultural and social history of Europe from 1500 to the present day, as a background of present-day civilization. Not open to juniors or seniors except by permission of the instructor.
- 8A-8B. **History of the Americas.** (3-3) Beginning either semester. The STAFF
 A study of the development of the Western Hemisphere from the discovery to the present, with attention in the first semester to exploration and settlement, colonial growth, imperial rivalries, and the achievement of independence, and, in the second semester, emphasis upon the evolution of the American nations and people in the nineteenth and twentieth centuries.

17A-17B. Political and Social History of the United States. (3-3) Yr.

Mr. BUCHANAN

The evolution of American institutions and civilization. For the general student, to provide a basis for advanced study. The two semesters of this course will satisfy the Requirement of American History and Institutions. Not open to freshmen.

88. History of California and the Pacific Coast. (3) I.

Mr. BUCHANAN

California and the Pacific Coast, with emphasis on the Spanish-Mexican period of California history, and its relation to the Pacific Coast.

For ways of satisfying the requirement in American History and Institutions see page 51.

UPPER DIVISION COURSES

Prerequisite to all upper division courses: History 4A-4B, or 8A-8B, or an equivalent at the option of the instructor.

113A-113B. European History Since 1815. (3-3) Yr.

Mr. ADAMS

European political and social development and world relationships, from the Congress of Vienna to the present day.

131. History of the British Empire. (3) I.

Mr. NETTLES

The rise and development of the British Empire. The story of British expansion and the growth of the British Commonwealth of Nations.

136. Political Development of the Far East. (3) I.

The political and social development of the peoples of the Orient from the earliest times, with emphasis upon China, India, and Japan.

138. History of American Diplomacy in the Far East. (3) II.

Far Eastern international politics, with emphasis upon American foreign policy in that area.

141. Sixteenth-Century Europe; The Reformation. (3) I.

Mr. ADAMS

A study of the political, social, economic and intellectual history of Europe from 1500 to 1648.

142. History of Latin America. (3) I.

The STAFF

The rise and progress of the Latin-American nations.

150. History of Russia. (3) II.

Mr. ADAMS

A history of Russia with emphasis on the nineteenth century.

151. History of the Pacific Ocean Area. (3) II.

The STAFF

The activities of European peoples and of the United States in the Pacific Ocean and adjacent regions. A study of the struggle for political and economic leadership in the past, together with consideration of the present situation and problems of the area.

153A-153B. History of England. (3-3) Yr.

Mr. NETTLES

The political, constitutional, economic, and cultural history of the British Isles.

173. Civil War and Reconstruction. (3) I.

Mr. BUCHANAN

History of the United States from 1850 to 1877.

174. **Recent History of the United States.** (3) II. Mr. BUCHANAN
Political, economic, and social development of the United States from 1900 to the present time.
175. **History of the Foreign Relations of the United States.** (3) I. Mr. BUCHANAN
The diplomatic history of the United States, with emphasis on contemporary problems.
186. **History of California: The American Period.** (3) I, II. Mr. BUCHANAN
187. **History of the Modern Near East.** (3) II. Mr. NETTLES
Historical background of the Near East; decline and dissolution of the Ottoman Empire, the rise of national states, and the rivalry of the great powers.
190. **Historical Method and Historiography.** (1-3) II. The STAFF

Philosophy

LOWER DIVISION COURSES

- 6A-6B. **Introduction to Philosophy.** (3-3) Yr. Mr. GIRVETZ
(Course 6A is prerequisite to 6B. It is recommended that students taking only three units of philosophy register in Philosophy 8, although Philosophy 6A is acceptable as fulfilling the general philosophy requirement. Students are urged to defer fulfilling the philosophy requirement until their sophomore year.)
8. **Survey of Philosophy.** (3) I, II. The STAFF
(Not open for credit to students who have completed 6A or 6B.)
An examination, primarily for students not likely to continue in philosophy, of the leading philosophical ideas in terms of which western civilization has sought to understand itself and the world of which it is a part.
12. **Introduction to Logic and Scientific Method.** (3) I, II. ———
Not open to freshmen.

UPPER DIVISION COURSES

- 100A-100B. **History of Philosophy.** (3-3) Yr. The STAFF
I. From the Pre-Socratics to Plotinus.
II. Scholasticism, humanism, and the rise of modern science; continental rationalism (Descartés, Spinoza, Leibniz); British empiricism (Locke, Berkeley, Hume); Kant and nineteenth-century German idealism.
104. **Ethics.** (3) II. Mr. GIRVETZ
The history and development of ethical theory; an analysis of the nature of ethical choice and deliberation.
108. **Social Philosophy.** (3) II. The STAFF
An analysis of the basic concepts and methods of the social sciences and of the relationship of the social to the biological and physical sciences. Basic problems of human personality and values in relation to their social matrix.

Political Science

Preparation for the Major:

Required:	Units
Political Science 1. Introduction to Political Science.....	3
Political Science 2. Political Institutions	3
History 4A-4B. Introduction to the History of Western Civil- ization	3-3
or History 17A-17B. Political and Social History of the United States.....	3-3

Recommended: Economics 1A-1B or Geography 1A-1B.

The Major: Required: twenty-four units of upper division work in the major, 18 units of which must be taken in political science. Six units may be included from history or other courses approved by the department.

LOWER DIVISION COURSES

1. **Introduction to Political Science.** (3) I. _____
The forces and principles which operate in the field of government and law. Two lectures, one quiz section per week.
2. **Political Institutions.** (3) II. _____
Contemporary foreign governments, with particular attention to Britain, France and Russia. Two lectures, one quiz section per week.
50. **Survey of American Government.** (3) I, II. Mr. GOODSPEED
A broad study of federal, state, and local government in the United States. This course is designed to fulfill in part the American Institutions requirement.

For ways of satisfying the requirement in American History and Institutions, see page 51.

UPPER DIVISION COURSES

- *113. **American Political Thought.** (2) II. _____
A study of the works of selected American political thinkers from Madison and Jefferson to the present.
121. **International Relations.** (3) I. Mr. GOODSPEED
The nation-state system and the forces which operate in world politics.
124. **International Organization.** (2) II. Mr. GOODSPEED
The development and problems of such organizations as the League of Nations and the United Nations.
- *129. **The Foreign Policies of the Great Powers.** (3) II. Mr. GOODSPEED
A study of the basic factors that underlie the foreign policies of the great powers.
136. **Political Development of the Far East.** (3) I. _____
The political and social development of the peoples of the Orient from the earliest times, with emphasis upon China, India, and Japan.

* Not to be given, 1948-1949.

138. **International Relations of the Far East.** (3) II. _____
Far Eastern international politics, with emphasis upon American foreign policy in that area.
148. **Governments of Latin America.** (3) II. Mr. GOODSPEED
The government and politics of the Latin-American states, with particular attention to the ABC powers and Mexico.
152. **American Political Parties.** (2) I. Mr. GOODSPEED
The role of political organizations in the United States.
- *157. **American Constitutional Law.** (3) II. The STAFF
A study of the principles of the federal constitution as developed through judicial interpretation and usage, including federal-state relations, restrictions on the federal government, and the status of individual rights.
163. **Government of Cities.** (3) I. Mr. GOODSPEED
Governmental problems of urban communities and the development of modern techniques for their solution.
175. **History of the Foreign Relations of the United States.** (3) I. Mr. BUCHANAN
The diplomatic history of the United States with emphasis upon contemporary problems.
181. **Principles of Public Administration.** (3) II. Mr. GOODSPEED
The growth of organization and procedures required in handling the increasingly complex administration of governmental powers and services.
- 189A-189B. **Political Theory.** (2-2) Yr. _____
Theories of political control and the relationship of men and the state.
190. **Bibliography and Research Methods in Political Science.** (1-3) I, II. _____
The sources from which the data of political science are drawn and the limitations of various methods of interpretation.

Social Science

Preparation for the Major:

Required:	Units
History 4A-4B. Introduction to History of Western Civilization.....	3-3
Sociology 1. Introductory Sociology	3
or	
Sociology 2. Social Institutions	3
and	
Economics 1A-1B. Principles of Economics.....	3-3
or	
Political Science 1. Introduction to Political Science.....	3
Political Science 2. Political Institutions	3
or their equivalent.	

The major: Required: 27 units upper division work including 15 units in the subject field of emphasis in the social sciences, and 6 units in each of two other subject fields of the social sciences.

* Not to be given, 1948-1949.

Sociology

Preparation for the Major:

Required: 6 units of lower division sociology:	Units
Sociology 1. Introductory Sociology	3
Sociology 2. Social Institutions	3
Sociology 7. Social Disorganization	3
and	
Anthropology 1A-1B. General Anthropology	3-3
Economics 40. Elementary Statistics	3
or	
Psychology 107. Statistical Techniques	3
Economics 1A-1B. Principles of Economics	3-3
or	
Political Science 1. Introduction to Political Science.....	3
Political Science 2. Political Institutions	3
or	
History 4A-4B. Introduction to History of Western Civil- ization	3-3

The major: Required: twenty-four units of upper division work: 18 units in sociology:

Sociology 120. Marriage and the Family.....	3
Sociology 130. Social Change.....	3
Sociology 162A-162B. Modern Reform Movements and Their Sociological Significance	3-3
Sociology 166. Group Behavior.....	3
and	
Sociology 185. Population.....	3
or	
Sociology 189. Minority Group Relations.....	3
Anthropology 100A-100B. Cultural Anthropology.....	3-3

LOWER DIVISION COURSES

1. **Introductory Sociology.** (3) I, II.

The STAFF

Introduction to the field of sociology. Sociological principles in their application to contemporary American culture. Two lectures and one quiz section per week.
2. **Social Institutions.** (3) I, II.

Mr. GIRVETZ

The nature and processes of social institutions with emphasis upon economic, political, familial, and other institutions.
7. **Social Disorganization.** (3) II.

Mr. NETTLER

Prerequisite: Sociology 1.
A study of the causative factors and the control of "disorganized" behaviors such as divorce, suicide, delinquency, prostitution, and unemployment.

UPPER DIVISION COURSES

Prerequisites to upper division courses in sociology: upper division standing and Sociology 1, or 2, or the equivalent.

- 120. Marriage and the Family.** (3) I, II. Mr. CONRAD
The economic, social, and psychological aspects of family life, past and present. Two lectures, one quiz section per week.
- *121. Principles and Practice of Probation.** (3) I. The STAFF
Probation and the juvenile court, and their relation to schools and other agencies. Methods of diagnosis and treatment of delinquency.
- 130. Social Change.** (3) II. Mr. GIRVETZ, Mr. NETTLER
A study of theories of social change and the meaning of progress; an analysis of the factors involved, and their relevance to contemporary trends.
- *135. Principles of Social Welfare.** (3) II. The STAFF
The principles and methods of modern social work. Problems of both case work and group work will be studied. The course will be of especial value for those students expecting to continue further study in the field at some other institution.
- *143. Urban Sociology.** (3) I. The STAFF
Urban and rural cultures; the characteristics of cities in western civilization, with emphasis on the American metropolis.
- *151. Industrial Sociology.** (3) I. Mr. GIRVETZ, Mr. NETTLER
The labor union and corporation as forms of social organization; an analysis of the influence of the factory on group life.
- 153. Public Opinion and Social Attitudes.** (3) I. Mr. NETTLER
Prerequisite: Sociology 1, Psychology 1A or consent of instructor.
The measurement of attitude and opinion; the determination of attitude; opinion change, propaganda, and the media of opinion formation.
- 162A-162B. Modern Reform Movements and Their Sociological Significance.**
(3-3) Yr. Mr. GIRVETZ
An historical and comparative survey of utopianism, socialism, communism, classical and contemporary liberalism, and other systems of reform and reconstruction.
- 166. Group Behavior.** (3) I. Mr. NETTLER
Prerequisite: Sociology 1 and Psychology 1A or consent of instructor.
The meaning of group membership; group effects and leadership possibilities; an analysis of the structure and function of representative group-types; political and religious group behavior.
- 185. Population.** (3) I. Mr. CONRAD
A study of the causes and consequences of population movement, distribution, composition, and growth.
- 189. Minority Group Relations.** (3) II. The STAFF
Problems of race and minority groups in the United States.

* Not to be given, 1948-1949.

SPEECH

- VIRGIL L. BERGMAN, M.A., Lecturer in Speech.
- THEODORE W. HATLEN, M.A., Assistant Professor of Speech.
- EVELYN P. KENESSON, Ph.D., Assistant Professor of Speech.
- UPTON S. PALMER, M.A., Lecturer in Speech.
- JOHN C. SNIDECOR, Ph.D., Associate Professor of Speech.

The Department of Speech offers an academic (nonteaching) major in speech with general areas of emphasis in drama production, remedial speech, forensics, and radio.

Recommendations are made to the State Department of Education for two types of speech credentials:

(1) The special secondary credential in speech arts, entitling the holder to teach public speaking and dramatics in the public schools. (2) The speech credential in the correction of speech defects, entitling the holder to offer corrective work in speech in the public schools, must be combined with one of the following: (a) general elementary credential, (b) general junior high credential, (c) early childhood education credential, (d) special secondary credential in speech arts. The credential in the correction of speech defects requires the completion of 132 units, or an additional semester beyond the requirements for the general credential. Students applying for the correction credential need not be speech majors.

Preparation for the Major in Speech. (1) Students should have passed Subject A (either examination or course) before taking Speech 11. By special arrangement students may take Subject A and Speech 11 concurrently. (2) English 1A and 1B may be taken concurrently with lower division work in speech. (3) Majors are expected to demonstrate, prior to the junior year, reasonable skill in the presentation of oral materials before various types of audiences.

Requirements for the Major in Speech. 1. Students must present, by the first half of the junior year, a program to be examined and approved by the Chairman of the Department. The program may be amended from time to time after consultation with the Chairman.

2. The program must include 39 units in speech, 18 units of which must be upper division courses.

3. The following are required courses for the major in speech:	Units
Speech 11. Fundamentals of Speech.....	3
Speech 31. Public Speaking	3
Speech 42. Oral Reading	3
Speech 45. Orientation to the Theatre.....	3
Speech 46. Voice and Articulation Improvement.....	3
or	
Speech 136. Introduction to Remedial Speech.....	3
Speech 50. Phonetics	3
Speech 172. Speech Correction	3
Speech 199A or 199B. Problems in Speech.....	3

The remaining 15 units required for the major should be selected after conferences with faculty advisers.

Courses in Education required for a credential in each of the above groups are: Education 57, 110, 111, 170, Education Sp. 190, and Education Sp. 192A. In addition, Education Sp. 192B and Psychology 148 or 168 are required for the credential in speech correction.

Courses in English. Students who are primarily interested in dramatic and radio production are expected to elect English 117E or J and at least one of the following courses: English 114A, 114B, 120.

Allied Courses. For courses recommended in the allied fields of music, industrial arts, and science, students should consult their speech adviser.

Demonstration of knowledge and skills. Major students must maintain an average grade of C or higher in upper division speech courses. After the completion of Speech 199A or 199B, students must pass a written or an oral examination based upon a review of their work in speech. During the same semester they must publicly demonstrate skill in speech performance.

Requirements for the Minor in Speech. A minor in speech consists of 18 units: 9 lower division (of which 3 must be in Speech 11), and 9 upper division (Speech 46 or 136 is required). The remaining units are elected by the student subject to the approval of his speech adviser.

LOWER DIVISION COURSES

11. **Fundamentals of Speech.** (3) I, II. The STAFF
Prerequisite to all speech courses except with the permission of the instructor.
Orientation in the field of speech. Emphasis on improving speech skills through participation in public speaking, oral reading, and discussion. Attention to individual needs. See Speech 46.
21. **Discussion and Problem Solving.** (3) I, II. The STAFF
Prerequisite: Speech 11, English 1A or 1B.
Group expression and problem solving through discussion. Presentation of discussions related to significant social, literary, artistic, philosophical and scientific movements and concepts contributing to our cultural heritage. Primarily for those not majoring in speech.
30. **Fundamentals of Acting.** (3) II. Mr. HATLEN
Development of the actor's basic skills of voice and body through the use of readings, lectures, exercises, and projects. Includes a study of stage techniques and psychological aspects of characterization.
31. **Public Speaking.** (3) I. Mr. PALMER
Practice in preparing various types of speeches with attention to content, the organization of speech material, and oral presentation.
40. **Radio Broadcasting.** (3) I. Mr. BERGMAN
The principles and techniques of radio broadcasting. Emphasis will be placed on radio speech, microphone technique, and various types of radio presentations. Students will participate in regularly scheduled class productions working from professional and student-written scripts.
42. **Oral Reading.** (3) II. Mr. BERGMAN
Designed for those who wish to increase their ability to interpret from the printed page. A study of the different types of literature and the various techniques of oral interpretation.

- 45. Orientation in the Theatre.** (3) I. Mr. HATLEN
Designed to acquaint the student with the general nature of dramatic presentation, including elements of dramatic structure, types of drama, and the contributions of the actor, director, designer, technician, and audience.
- 46. Voice and Articulation Improvement.** (3) II. Mr. SNIDECOR
The bases of correct sound formation, and standards for the use of voice and pronunciation. Practical training on an individual basis is emphasized. Open to students who have not had Speech 11 and who have the consent of the instructor.
- 50. Phonetics.** (3) I. Mr. SNIDECOR
Systematic and scientific consideration of physiological, linguistic, cultural, and historical factors of American pronunciation. Introduction to the International Phonetic Alphabet.
- 52. Debate.** (3) II. Miss KENESSON
Intensive drill in debate techniques. Class members will participate in intercollegiate forensic activities.
- 58. Argumentation and Public Discussion.** (3) I. Miss KENESSON
Introduction to forms of argument, analysis, evidence, and speech organization. Participation in discussion projects.

UPPER DIVISION COURSES

- *117. General Semantics.** (3) II. Mr. SNIDECOR
The systematic study of the meaning of language as it relates to human behavior. The principles and techniques thus derived are applied to personal and social problems.
- *131. Advanced Public Speaking.** (3) II. Mr. PALMER
Special attention to audience analysis and consideration of persuasion techniques as applied to platform speaking.
- 136. Introduction to Remedial Speech.** (3) I. Mr. SNIDECOR
Elementary speech retraining techniques with emphasis on the more basic problems encountered in the public school classroom.
- 140. Radio Broadcasting.** (3) II. Mr. BERGMAN
Prerequisite: Speech 40 or equivalent radio experience.
Advanced production of regularly scheduled programs over local radio stations. Work will include participation in the various types of radio programs.
- 142. Advanced Oral Reading.** (3) I. Mr. BERGMAN
Prerequisite: Speech 42 recommended.
Advanced theory and practice of oral interpretation using representative types of prose and poetry including contemporary plays. Emphasis is placed on well-developed individual projects.
- *145. Radio Writing.** (3) II. Mr. HATLEN
The theory and practice of writing radio drama, continuity, and news material for broadcasting. Acceptable scripts will be produced in Speech 40 and 140, and over local broadcasting stations.

* Not to be given, 1948-1949.

158. **Argumentation and Public Discussion.** (3) I. Miss KENESSON
Advanced training in discussion methods. Emphasis on public performance.
- 159A–159B. **Participation in Theatrical Productions.** (3–3) I, II. Mr. HATLEN
Students are assigned projects in acting, stagecraft, directing, and other phases of production contributing to a program of play readings, workshop plays, and major productions.
160. **Development of the Theatre.** (3) I. Mr. HATLEN
A survey of the theatre from early Greek origins to the present time. Emphasis is placed upon the nature of the physical playhouse, modes of acting and staging, and the contributions of important figures.
170. **(I.E. 170) Stagecraft.** (3) II. Mr. NAIR
Study of the physical theatre and of the design, construction, painting, and lighting of stage settings. Practical experience afforded in set construction and backstage duties in connection with college dramatic productions.
- *172. **Speech Correction.** (3) I. Mr. SNIDECOR
The elementary neuromuscular and psychological bases of speech. Nature, causes, and remedial procedures for correcting phonatory, articulatory, and psychological speech disorders. Should be taken prior to Speech 177.
- *177. **Methods in Speech Correction.** (3) II. Mr. SNIDECOR
Diagnostic and remedial techniques as these are applied at the school and clinical level; observation and practical work with a variety of speech and hearing problems.
- 199A–199B. **Problems in Speech. (Speech Correction, Forensics, Radio, Dramatic Production).** (3–3) I, II. The STAFF
Investigation of special problems in the field of speech with faculty supervision. Oral examination of special projects and general backgrounds in speech. Demonstration of skill.

The following courses in the Department of Education are specifically related to the Department of Speech: Education Sp. 190; Sp. 192A; and Sp. 192B. For descriptions of these courses, see the Department of Education.

The Speech Clinic

Adjacent to the speech classrooms and offices is maintained a Speech Laboratory which houses recording machines, motion picture cameras, and testing devices to implement instruction. The staff sets up weekly conference hours in the laboratory for the assistance of individuals in all the speech classes, particularly for the projects described under Speech 11, Speech 31, Education Sp. 190, and for assistance in correction of speech deviations in any student of the College.

* Not to be given, 1948–1949.

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